DOCUMENT RESUME

ED 058 388 VT 010 965

AUTHOR	Sizemore, Earl M.; Dobbs, Bruce L.
TITLE	Job Guide for Young Workers, 1969-70 Edition.
INSTITUTION	Manpower Administration (DOL), Washington, D.C. U.S. Training and Employment Service.
PUB DATE	69
NOTE	390p.
AVAILABLE FROM	Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 (L1.7/6:969-70, $1.50)
EDRS PRICE	MF-$0.65 HC-$13.16
DESCRIPTORS	*Employment Opportunities; Job Applicants; Job Market; Jobs; *Occupational Information; Part Time Jobs; *Post High School Guidance; *Vocational Counseling; Youth; *Youth Employment

ABSTRACT

This job guide for youth contains names of places to go and people to see for information and advice on how to analyze one's abilities and interests and select suitable work. There is information on the benefits of a good education, on references for sources of financial aid and part-time and temporary jobs, and on preparing for a job interview. The bulk of the document is comprised of 150 occupational briefs of jobs frequently taken by youth after they graduate from high school and is divided into the following sections: (1) professional, technical, and managerial, (2) clerical and sales, (3) service, (4) farming, fishery, forestry, (5) processing, (6) bench work, (7) structural work, and (8) miscellaneous. Each brief includes data on duties, job characteristics, qualifications, employment prospects, advancement opportunities, and finding a job. Additional references and a note to counselors are appended. (Author/BC)

ED 058 358

Job Guide For Young Workers

1969-70 Edition

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Manpower
Administration

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Preface

The **Job Guide for Young Workers** is the 10th edition issued since 1949. Each issue reflected changes in job content and in the job market. Improvements were made in the booklet based on experience with the previous issues. Each issue has been found to be helpful to young jobseekers, counselors in high schools and elsewhere, and secondary school teachers.

Although we hope that this edition is the best and most useful one so far, we will welcome suggestions from counselors and teachers, and the young people themselves, for further changes to increase the usefulness of the **Job Guide** in counseling and teaching.

We are grateful to the other Bureaus in the Department of Labor which provided information, particularly the Bureau of Labor Statistics from whose numerous studies and publications we extracted the industrial and occupational outlook information included in the **Job Guide.** We are also grateful to the U.S. Office of Education, and the numerous private individuals who were helpful.

This edition was prepared in the Branch of Career Information by Earl M. Sizemore and Bruce L. Dobbs, under the supervision of Walter S. Studdiford.

Introduction

YOU ARE an exceptional young man or young woman if you have thought about the following questions:

1. What kind of work would you like to do?
2. What are your special abilities and interests?
3. Why is the industry in which your job is found important to you?
4. How much more money can you earn in a lifetime with a high school education than you can with an eighth grade education?
5. What is the difference in lifetime earnings between a college graduate and a high school graduate?
6. How many ways can you get financial aid to help you stay in school and continue your education?
7. What kinds of job-training programs are available to you?
8. Which occupations and industries offer the best job opportunities to you?
9. How many different places and people can you contact in search of a job when you are ready to work?

Well, how many can you answer? One out of nine? Two out of nine? Three out of nine? More?

Even if your score is zero, you are nevertheless an unusual person because you have shown concern over your future just by opening this booklet and reading this far. Too many young people leave school to find jobs without thinking about these questions. As a result, their search for work is long and hard. In fact, 1 out of 3 people now without a job is a young person somewhere between 16 and 21 years of age. Moreover, over 1 million youth are looking for jobs. Many would now have jobs if they had shown as much interest in their future as you have in yours.

You really need to have good answers to these questions and to many more that you will undoubtedly ask yourself as you become more involved in job-hunting. When you have found these answers, you will have taken a giant step toward getting a job of your choice. To find such answers, you will probably need some help. And the purpose of this **Job Guide for Young Workers** is to help you get started right.

This **Job Guide** lists the names of places you can go and people you can see for information and advice about what you can do to learn about your abilities and interests and the kinds of work that suit you. To help you get some idea of the kinds of jobs in existence and how they are related, the **Job Guide** shows you a breakdown of jobs that are alike and those that are not alike. Such a grouping makes it easier for you to learn about many related jobs at once when trying to make up your mind about the one you want. In addition, you'll learn why the industry in which your job is to be found is important to you.

Also, this **Job Guide** discusses some of the benefits of a good education and tells you how you can get financial aid if you want to continue your education. It also tells you about the many job-training programs available for young jobseekers. In addition, it gives you information about some of the benefits of part-time and temporary jobs and tells how you can go about getting one.

In the section of the **Job Guide** called "Getting the Job You Want," you'll find out how to let employers know that you're looking for a job. Here also you'll find some tips on how to do your best when talking to a future employer. Following this, the **Job Guide** gives you information on job openings now and in the future. Lastly, the section entitled "Occupational Briefs" gives you the kinds of information you will want to have about the jobs of your choice. Many of the 150 jobs in this section are examples of the jobs that young jobseekers frequently get upon leaving high school. Other jobs require education and training beyond high school. Perhaps the one you want or are interested in is included here.

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Job Help From Various Organizations And People

Even though today there is, on a nationwide basis, less unemployment than there has been at many times in our country's history, there is still too much, and there are a number of "pockets" in the country where many people who live in one of these areas are unemployed. Most of these areas are in large cities. Some of the people who are working are "underemployed" — they are working at jobs which don't call for the best in skills and abilities they have to offer. There are a number of reasons why these conditions exist. There just may not be enough jobs in the community to go around. Some of the jobs that are available may require skills, training, or education that most of the people don't have. Perhaps a person has reached the age where he can no longer do the work he did when he was younger; perhaps a physical handicap limits the kind of work he can do. It seems too, that the longer a person is unemployed the more difficult it is to get a job.

All levels of government, private industry, and others are sharing an effort today to solve this problem by trying to see that all who are willing to work are provided with whatever is necessary for them to get a job. The U.S. Department of Labor is particularly active in this effort toward full employment. A major thrust is the JOBS (Job Opportunities in the Business Sector) program, a partnership of government and business working together to hire hard-core unemployed and pay them as they train for a job. Another effective approach is the Concentrated Employment Program, which provides all manpower and related services to the areas and people most in need. Some programs, such as New Careers, give work experience to youth to prepare them for regular jobs. There are a number of other programs you will read about under the chapter "Out-of-School Training" and elsewhere as you read further, which are part of this effort. Some of these programs involve going into the areas of unemployment to reach those who need help in getting jobs instead of waiting for them to come to the employment offices; some involve working with employers to try to develop jobs for those who need them; and some involve working with employers and local training agencies to set up training programs for people who don't have the skills or experience to perform the jobs that need doing.

Many of these programs are set up largely for young people who have little or no work experience and who usually have greater difficulty in finding jobs on their own.

Since a job—especially your first one—is so important to you, you must not trust to blind luck. But that's just what you'll do if you set out searching for one without enough knowledge or information about jobs, about how to get them, and about yourself in the role of a worker. You don't however, have to start your search with only blind luck. There are many persons who can help you in your hunt for the right job and can also save you a lot of time and effort. You'll be doing yourself a favor if you take advantage of the experience and knowledge about work and workers.

HELP FROM THE LOCAL OFFICE OF YOUR STATE EMPLOYMENT SERVICE

Every State has a statewide Employment Service. The Employment Service in your State operates an employment office in your town or a nearby large community. This office can help you make your occupational choice and get a job. You will want to use its services.

No one seeking a job should be denied the opportunity to obtain a job on the basis of race, color, national origin, religion, sex, or age. The law and Federal regulations specifically prohibit these kinds of discrimination.

While government, as well as private industry, labor unions, and community groups, is making efforts to bring about equal opportunity in employment, discriminatory practices still exist. A counselor at the local Employment Service office should be of assistance to you in guiding you into gainful employment. If you are having problems, get in touch with him. He can help determine whether discrimination is involved.

The Employment Service office receives orders for workers from various employers in your community, and its personnel know which jobs are readily available and which are harder to get. In addition, the counselors in this office have occupational information and forecasts based on local conditions; they know the hiring requirements and wages in your area. They also have tests which will help you find out and measure your aptitudes and abilities. With this knowledge of jobs and local conditions and their understanding of how to relate test scores to jobs, these counselors can help you find the kind of job you can do best, and at the same time, put you in touch with employers who are trying to find the workers they need.

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Other services are also available through your State Employment Service. Perhaps you are interested in an apprenticeship or training program. Some local offices have an Apprenticeship Information Center which works closely with employers and unions, and has detailed information for you. Even without the center, Employment Service personnel know what's available in your area. If you have a physical disability, there are special placement services for you. Your local State Employment Service office works closely with rehabilitation agencies in placing handicapped persons in suitable jobs. Finally, if you are interested in jobs in other areas of the State, or even in other States, this office can help you get information about those opportunities.

If you are under 22 years of age, your Employment Service office may help you through one of the approximately 175 Youth Opportunity Centers found in large cities around the country. These centers are especially designed to help young people prepare for and find jobs.

These services are all free. The address and telephone number of the office nearest you is in the telephone directory.

HELP FROM YOUR STATE DEPARTMENT OF LABOR

Both State and Federal governments have laws regulating the employment of young people. The Federal Fair Labor Standards Act states that persons 16 years old and over may be employed in all occupations except those which are declared hazardous by the Secretary of Labor. There are 17 such occupations currently declared off limits for workers under 18 years of age.

Among the jobs considered hazardous are those of motor vehicle driver and helper; operator of any power-driven hoisting machinery including elevators; and operator of certain power-driven machines. This law also sets the conditions for youth aged 14 and 15 to work outside school hours in a limited number of occupations, such as office and sales work and certain food service and gasoline service jobs.

The different States have their own laws which set minimum wages and hours and conditions of work, require school attendance, and control the issuance of certificates or work permits for young people. To find out about these laws and how they affect you, get in touch with the nearest local office of your State Employment Service or write to your State's Department of Labor. It is usually located in your State capital.

HELP FROM YOUR COUNSELOR, TEACHER, OR PRINCIPAL

The high school you attend is an excellent starting point in planning your future occupation. Your school counselor has vocational and personality tests to help you define your interests and abilities. He can help you select courses and vocational training which fit your plans and give you a real headstart in looking for a job. In addition, he knows of any special surveys about jobs that may have been done by school or community groups in your area.

Other sources of information in your school include teachers of special subjects, such as industrial arts, shorthand, and art, who can give you information about jobs related to the subjects they teach. Your school librarian, as well as your counselor, principal, and teachers, may have information about jobs which you will want to read and consider. A book that may be of particular help to you, and which most school librarians and counselors know about and have, is the **Occupational Outlook Handbook,** prepared by the Bureau of Labor Statistics of the U.S. Department of Labor. It contains detailed information about more than 700 occupations.

HELP FROM UNION OFFICIALS, LOCAL EMPLOYERS, AND YOUR NEAREST FEDERAL, STATE, OR LOCAL CIVIL SERVICE COMMISSION OFFICE

Your occupational choice may make it necessary for you to talk with knowledgeable people, for instance union representatives who have information about the field you want to enter. Hiring for certain jobs is sometimes done directly through joint apprenticeship committees. Even if this is not the case, officials of the joint apprenticeship committees will be able to tell you about the outlook for their occupations and their apprenticeship programs. You can also write letters to and make appointments at the personnel offices of employers offering the kind of work which interests you. They will have information about job requirements and work opportunities. More jobs with Federal and State governments have specific requirements established by the government, including a test for which you must apply in advance. You can get information about government jobs by contacting your local Federal or State Civil Service Commission office, which usually is located in the local Post Office. The exact addresses, however, of both Federal and State Civil Service

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Union officials, employers, and representatives of the Civil Service Commissions are all willing to help you—but it is up to you to contact them.

HELP FROM THE LOCAL RECRUITERS OF ARMY, AIR FORCE, NAVY, AND MARINE CORPS

You can also get advice on career and training possibilities in the Armed Forces from recruiters who are stationed in, or regularly visit, your community. Most young men and some young women spend time in the armed services. These years can be used to get education and training which will later open doors to interesting and well-paying civilian jobs. As far as the needs of the Armed Forces allow, your aptitudes, training, and interests will be considered in your assignment. Naturally, you will be able to use these years to your better advantage if you have made a thoughtful occupational choice before you enter the Armed Forces.

The experience gained from military service can be useful, whether or not you stay in the service. A recent study shows that workers in some jobs do better and make more progress when they have had related military training. In addition, as a veteran you'll receive special treatment when applying for a job. The local State Employment Service office has the responsibility of contacting veterans and providing them with additional services. However, even if you are a veteran, don't wait for an Employment Service official to contact you. Visit the local State Employment Service office and ask for the veterans representative, who will see that you're well taken care of.

HELP FROM WORKERS IN THE FIELD THAT INTERESTS YOU

Another way of finding out about particular jobs is to talk to people in those fields. Most people like to talk about their jobs, and most are glad to give information about their line of work to young, interested persons. These workers may even know about job openings in their own establishments or others in the same line of work. If you know someone who does the kind of work that interests you, ask him for information. Otherwise ask a friend or a relative if he knows someone in the field of work that interests you. Perhaps, through a friend or a relative you'll meet a few workers who can help you.

Kinds Of Occupations

Kinds Of Occupations

In exploring work opportunities you will find that occupations are related in various ways. These relationships make it easier to group them and to consider them together. One way of grouping them is as follows:

Professional, technical, and managerial occupations call for specialized knowledge gained beyond high school, either in universities, junior colleges, technical schools, or through progressive work experience. This group of jobs offers few entry opportunities for the high school graduate. Teacher, nurse, physician, accountant, chemist, salesmanager, and editor are examples of these occupations.

Clerical and sales occupations include many jobs open to high school grauates, especially those who have had training in typing, bookkeeping, and related subjects. The occupations in this category are concerned with preparing and recording written information, collecting accounts, distributing information, and doing sales work. Typical occupations include typist, bank teller, bookkeeper, key-punch operator, messenger, stock clerk, and salesperson.

Service occupations involve doing work in and around private households; serving individuals in institutions and in business and other establishments; and protecting the public against crime, fire, accidents, and acts of war. Many of the jobs in this category provide opportunities for those without training or experience. Some, however, require special training and licensing. Among the jobs found in **service** occupations are cook, waiter, barber, beautician, guard, and fireman.

Farming, fishery, forestry, and related occupations include the important work of on-farm production of food and fiber, as well as occupations in off-farm activities associated with agricultural products, ornamental horticulture, agricultural resources, and forestry. Some occupations included in this group are farmhand, farm equipment operator, cowpuncher, fisherman, fire lookout, nursery worker, gamekeeper, and forester aide. High school graduates will find a large number of beginning opportunities in both farm and off-farm agricultural fields.

Processing occupations are concerned with treating, mixing, compounding, and refining various materials and products such as metals, foods, wood products, and chemicals. Jobs typically involve working with vats, stills, ovens, furnaces, mixing machines, crushers, grinders, and similar equipment. A large number of beginning opportunities for both high school graduates and nongraduates are found in processing occupations.

Machine trades occupations are concerned with installing, setting up, running, keeping up, and repairing machines and mechanical equipment used to make parts out of materials such as metal, paper, wood, and stone. Most of the jobs in this category call for skills and judgment which can be gained only through training and experience. Therefore, apprenticeship or helper's jobs are the best way to get into most machine trades occupations.

Bench work occupations are concerned with the fine work which must be done on many small objects and on some materials at a bench, worktable, or conveyor. The worker uses his hands, handtools, and bench machines to grind, paint, sew, put together, inspect, or repair the product—which might be a musical instrument, a piece of electrical equipment, an article of clothing or jewelry, or one of any number of different things. Beginning workers usually are assigned to a given step in the production process, and they do their task or set of tasks many times in a single day. With experience, beginners can move up to more difficult work which may call for understanding blueprints in order to meet required standards of size and measurement.

Structural work occupations include the different kinds of work necessary to build and keep up structural parts ranging from buildings and bridges to motor vehicles. Factory production-line jobs, as well as jobs done outside factories or shops, are found in this category. Workers use hand and

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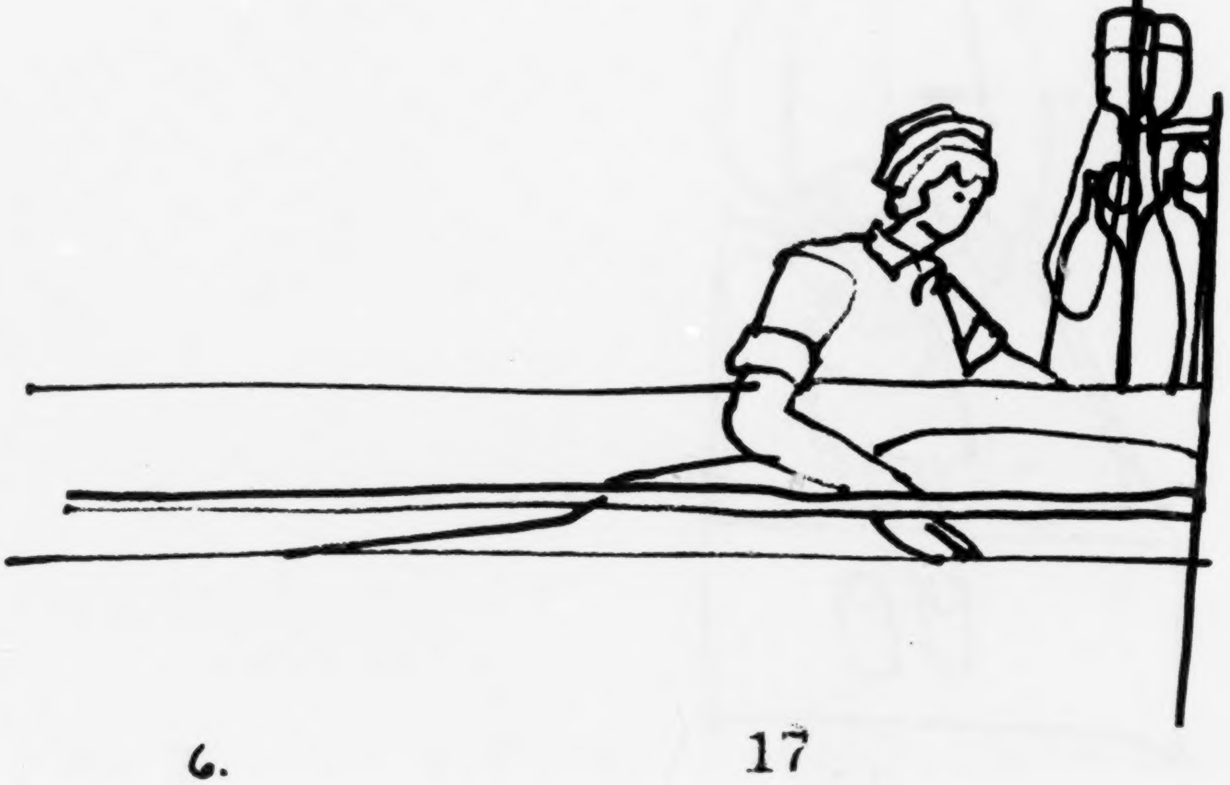
Structural work occupations include the different kinds of work necessary to build and keep up structural parts ranging from buildings and bridges to motor vehicles. Factory production-line jobs, as well as jobs done outside factories or shops, are found in this category. Workers use hand and portable power tools and work with wood, metal, concrete, glass, clay, and other materials. Since many of these jobs call for a knowledge of the materials which are used, beginners will find that apprenticeship and helper's jobs very often provide the best way into structural work occupations.

Miscellaneous occupations are those which do not fit in any of the other categories. These occupations may be concerned with the following: transportation services; packaging materials and storing items in warehouses; producing and distributing gas, water, steam, and electricity; amusement, recreation, and motion picture services; mining and logging; graphic art work; and various other activities.



Importance And Kinds Of Industries

Now that you know about the categories of occupations, you'll want to know where the jobs in each group are found. Many occupations, like bank teller, are found only in financial institutions; others, like truck driver, are found in many industries. Some, such as clerk and stenographer, are found in almost all industries.

Maybe you're asking yourself what difference the industry makes. The answer is, quite a lot. It usually affects the amount of money you earn, your chances for advancement, the working conditions, and the kinds of duties you have. For example, if the job you want is located in an industry which is "technically oriented"—that it, has to do with machines or technical procedures—then you will have to work directly or indirectly with complicated machines and technical language. Almost all manufacturing industries, such as steel mills and airplane manufacturing, are "technically oriented." So are jobs in machine shops and many jobs concerned with public utilities. Some people really don't like this kind of work and would prefer to work in surroundings where they have contact with and deal directly with many other people. If so, they will want to look for jobs in fields such as retail and wholesale trade, finance, insurance, and real estate rather than in manufacturing. In addition, some people prefer working in an activity that directly involves helping others, such as health services or social welfare.

You can get a lot of useful information by taking a look at the industry field or the "where" of a job. One way of presenting information on the kinds of industries, is as follows:

Manufacturing is concerned with making countless products all the way from steel beams to rubber bands. The largest number of workers and the widest variety of jobs are found in the manufacturing field. Some of the larger manufacturing industries are those that make food products, textiles, clothing, lumber and wood products, chemicals, steel, electrical and nonelectrical machinery, automobiles, aircraft, spacecraft, and those responsible for printing and publishing. In all these industries, there are certain processes or ways of making the product and of tending, operating, and caring for machinery and equipment. Each of these processes makes up the duties of most workers. Some of the jobs in mass production are simple and call for doing a few things many times every day; others challenge the highest skills of craftsmen and professional workers.

Wholesale and retail trade employs the next largest number of workers. Included in this field are retail stores and wholesale businesses which sell all kinds of merchandise from groceries to automobiles. In this field you will also find eating and drinking places. The largest single group of workers in this field are salespeople. There are also many waiters, waitresses, and managers of all kinds.

Agriculture includes not only the production of food and fiber but also businesses that provide supplies and services to farmers and ranchers, to those engaged in processing and marketing of agricultural products, and to forest management. Because of scientific advances in agriculture and the introduction of highly complex machinery and systems, the professional, technical, and other highly skilled occupations rather than the unskilled occupations are becoming more and more typical in this field.

Government employs many people in a wide variety of occupations. You may think of the typical government employee as a clerical worker. Actually, only one-fourth of government jobs are clerical jobs. The remainder range from unskilled laborers to highly trained scientists. Government workers are found in arsenals, shipyards, aerospace maintenance bases; in the postal service, police and fire departments, health clinics and schools; in maintenance of buildings and highways; in research laboratories; and in office buildings.

Services employ a large number of people in places such as automobile and TV repair shops, laundries and drycleaning establishments, hotels, barber and beauty shops, theaters, and homes. Hospitals, schools, welfare agencies, labor unions, accounting services, and research laboratories are also included as service industries.

Transportation and public utilities include workers in air transportation, railroads, radio and television stations, and trucking companies.

Construction involves many professional and skilled men in the building, maintenance, and repair of all types of structures from houses to bridges. Beginning jobs in this field include a large number of apprentices, laborers, and semiskilled workers.

Finance, insurance, and real estate industries employ many "white-collar" workers. Clerical occupations are common in banks and insurance companies. Many salesmen or sales agents work in real estate and brokerage firms, and insuranc
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and brokerage firms, and insurance companies employ many insurance agents.

Mining is a small but important industry field. While many miners are underground, some mineral deposits are close to the surface and are removed by strip mining. Also included in this field are jobs concerned with extracting petroleum and natural gas. Craftsmen and machine operators make up the greatest number of **mining** workers.

If you are interested in a particular industry, find out about the kinds of entry jobs it offers. In your consideration, remember that many "glamour" industries, such as missiles and spacecraft, electronics and plastics, include jobs which are routine and not nearly as glamorous as their products. Also, while large growing industries offer the best opportunities for many jobs, small industries often have opportunities which are just as satisfying. Even the industries and occupations where the total number of jobs remains about the same provide some good replacement job openings.

8.

Education

How often have you been told that to get a good job you must get a good education? You have probably heard these words from your parents, friends, or relatives more times than you can recall. You may even have noticed these words on an advertising card while riding on a bus or heard them over radio and television. Well, whoever said them to you gave you very sound advice. As a young jobseeker today, you face a job market in which education is the most important qualification you can have. The more you have of it, the greater are your chances of success. If you're thinking about dropping out of school or limiting your education to the high school level, you'll profit from the discussion that follows on various aspects of education.

SOME BENEFITS OF A GOOD EDUCATION

Today, more than ever before, just to be sure that you have a chance for a job, you must have a good education, because job opportunities are increasing most rapidly in occupations that require more education and better training. For instance, the greatest number of job opportunities are in professional and technical fields. But to get into one of these fields, you need an education on the college, university, or technical institute level. Opportunities to enter clerical work are also great, but most clerical occupations require a high school education. Opportunities for you to become a salesman or a salesperson are also good, but here again, a high school education is almost always required.

Job openings for machine tool operators, machinery repairmen and mechanics, carpenters, bricklayers, sheetmetal workers, plumbers, and other highly skilled workers are plentiful. In the past, many young jobseekers were able to get into these kinds of work with only 1 or 2 years of high school because the number of workers was limited. But now, with so many applicants available for such jobs, employers can and do insist on applicants with more and better education. Even where a high school education is not always required, employers give preference to high school graduates.

Opportunities for work such as farmhands, operators of small, family owned and operated farms, and laborers others than those on farms, all of which require little schooling, are very limited. In fact, these kinds of jobs are disappearing from the work scene. There are still some job openings available, but there are not enough of them to go around.

With a good education you'll earn more money throughout your lifetime. High school graduates earn, on the average, almost twice as much money in their lifetimes as do workers who have less than a high school education. Even workers with from 1 to 3 years of high school average $28,000 more than those with only 8 years of education. With some college training, the difference in the amount of money earned by workers becomes even greater. Such differences between the earning power of the educated worker and the undereducated worker will become increasingly wider.

Still another benefit of a good education is to be found in the way you can use it after you have been working for a while. Today, most young people just starting out on their first full-time jobs probably will change jobs several times during their lives. Sometimes, they change jobs because they have a choice. Sometimes, however, new machines come into use and take over their jobs. New processes, materials, and products also come into use and cause jobs to disappear or change. As a result, workers must find new jobs. Finding new jobs nowadays involves learning new skills. People with little education are finding it very hard, sometimes impossible, to learn different and higher skills. With a good educational background, however, you'll be prepared for change and will be able to cope with the challenge of learning a new skill and getting a new and better job.

Even now, while you're in school, you are learning many useful things. The knowledge you are getting from such courses as typing and stenography may qualify you for employment as a typist or a stenographer immediately upon leaving high school. The experience you are getting in such vocational courses as metal machining, woodworking, electrical repair, and automobile repair will weigh heavily in your favor when you apply for a job in any of these fields. In addition, you are acquiring good habits of study and concentration that will be just as important to you as a worker as they are to you as a student. Also, and perhaps most important of all, you are getting a sound understanding of mathematics and English. In almost every job, at one time or another, you will need to use at least one of them. In many jobs you'll need to use them both, especially English. At some time in doing your job you probably will be asked to make notes, reports, or records. You may also have to talk to a group of people. If you can express yourself easily, you will feel more confident and increase your chances motion.

So do all you can to stay in scho get that high school diploma. If yo the verge of dropping out or have r dropped out because you needed som money, make a beeline to the neares of your local State Employment S The workers in this office will do eve in their power to get you a part-ti while you're in school. They eve some summer jobs available. If you' vocational school and need some money or could attend one if you ha extra money, see your vocational cou vocational instructor, or a member local vocational school board. The help you get a part-time job.

SOME ADVANTAGES OF EDUCATIO BEYOND HIGH SCHOOL

If, however, you're lucky enough to ha chance to continue your education high school, you'll find, by doing so, t job opportunities and the benefits th available to a high school graduate ar greater for those with more educati training.

There are growing numbers of well- technical jobs open to those young with 1 or 2 years of special training. have the interest and ability, such o tions as electronic technician, engi aide, dental hygienist, draftsman, a oratory technician are promising po ties. These and similar specialize provide both good income and job sa tion. In addition, they can serve as op to professional and managerial pos The growing industrial use of atomic e

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So do all you can to stay in school and get that high school diploma. If you're on the verge of dropping out or have recently dropped out because you needed some extra money, make a beeline to the nearest office of your local State Employment Service. The workers in this office will do everything in their power to get you a part-time job while you're in school. They even have some summer jobs available. If you're in a vocational school and need some extra money or could attend one if you had some extra money, see your vocational counselor, vocational instructor, or a member of your local vocational school board. They can help you get a part-time job.

SOME ADVANTAGES OF EDUCATION BEYOND HIGH SCHOOL

If, however, you're lucky enough to have the chance to continue your education beyond high school, you'll find, by doing so, that the job opportunities and the benefits that are available to a high school graduate are even greater for those with more education and training.

There are growing numbers of well-paying technical jobs open to those young people with 1 or 2 years of special training. If you have the interest and ability, such occupations as electronic technician, engineering aide, dental hygienist, draftsman, and laboratory technician are promising possibilities. These and similar specialized jobs provide both good income and job satisfaction. In addition, they can serve as openings to professional and managerial positions. The growing industrial use of atomic energy, the trend toward more automation in factories, the challenge of outer space exploration, and the continued growth of the chemical and electronics industries all point to excellent future opportunities for trained technicians, who generally act as the link between scientists or engineers and skilled craftsmen.

Just as high school graduates have an advantage over dropouts, and technical school graduates have an advantage over high school graduates, those who have college training have the best chance of all to get interesting, steady jobs with good pay and a good future. At present, there are shortages of college trained men and women in important fields such as engineering, physics, mathematics, chemistry, and other sciences. In addition, more people will be needed than are now being trained for teaching, social work, nursing, and other medical and health careers. These kinds of occupations need not be out of your reach. If you want to go to college but need additional money, there are several sources of financial assistance now available to you.

FINANCIAL ASSISTANCE FOR CONTINUATION OF YOUR EDUCATION

One important source is the Federal Government. During the past 10 years, the Congress has enacted legislation to make it possible for more and more young students to continue their education beyond high school. One such act is the **National Defense Education Act** of 1958, which makes it possible for students who want to become trained in highly skilled technical jobs that are important to the Nation's defense to obtain low-interest loans from colleges and universities in which they are enrolled. It also makes funds available for loans to students in other occupational fields. Hundreds of millions of dollars have been borrowed by students as a result of this act, and amounts available for borrowing can be expected to increase each year.

Another financial-aid program to help students in college was brought into existence by the **Economic Opportunity Act** of 1964 (EOA). This program is called a work-study program. Through it, colleges and universities help students from low-income families to get part-time work while attending college and full-time work during the summer.

Still another financial-aid program was established by the **Higher Education Act** of 1965 (HEA), which also makes work-study programs available to students. But unlike the work-study program under the EOA, the students need not come from low-income families. They simply have to show that they need more money to meet their educational expenses. In addition to the work-study program, this act makes it possible for qualified high school graduates who desire a college education to obtain low-interest loans for that purpose.

Besides the programs of financial assistance that are available through the interest of the Federal Government, there are two other sources: private and academic. To obtain a list of the available private sources, write to:

College Scholarship Service
Box 176
Princeton, N.J. 08540
or
College Scholarship Service
Box 1025
Berkeley, Calif. 94701

The academic sources are the colleges and universities themselves. They have a great deal of financial aid in the form of scholarships, loans, and grants to offer to deserving students. Write or visit the college or university that you'd like to attend to find out what financial help is available to you.

To find out more about the financial programs available to you, talk to your school counselor or principal and the counselor in your local State Employment Service office.

Out-Of-School Training

Perhaps, on the other hand, you are interested in training not of the kind offered in technical schools and in colleges or universities. If so, there are many out-of-school training opportunities open to you. These opportunities are available to all young people from 16 through 21 years of age. It makes no difference whether you're a high school graduate or a dropout. You're still eligible to enroll in one of the many training programs now going on. In the past few years, hundreds of thousands of young men and women like you have gotten good jobs because they took advantage of the training-programs provided by the Federal Government. There are five major kinds of such programs from which you can choose:

1. Apprenticeship
2. On-the-job training
3. Institutional training
4. Preapprenticeship
5. Work training

All these programs were set up especially for you, the young jobseeker. Start thinking about them, choose the one that suits you, and then contact the person or organization that can help you get it.

APPRENTICESHIP PROGRAM

An apprenticeship program is made up of on-the-job training and related classroom instructions. A young person and his employer enter into a formal apprenticeship agreement that tells how long the apprenticeship will last, what the apprentice will learn, how much money he will earn, and other things that are required by law. An apprentice learns his job under the supervision and guidance of a journeyman worker in the same occupation. He learns very early in his apprenticeship how to use, care for, and safely handle the tools and equipment that he is to work with. After learning about them, he progresses step by step to harder tasks until he can do the whole job by himself. His training period may last from 2 to 5 years or more, depending on the particular trade or skilled occupation he is learning. Many young people like this kind of job-training program because they receive good pay, have steady employment, and feel a sense of doing something worthwhile.

To find out about apprenticeable occupations, especially one that interests you, read "Finding the Job" section in the Occupational Brief entitled "Apprenticeship—General Comments" on page 20. Then get in touch with the people and organizations mentioned there and ask about opportunities for an apprenticeship.

ON-THE-JOB TRAINING PROGRAM

On-the-job training is the kind that is given at the employer's place of business. It is the oldest way of learning to do work. Beginning workers in this kind of training learn by actually doing the work under the supervision and guidance of an experienced worker, a foreman, or a special instructor. At first the trainees do simple tasks. After they are able to do these tasks with no trouble, they then take on harder ones until they become good at doing the whole job. Many young people like on-the-job training because they see immediate results of their efforts, and because they like earning their wages while learning a useful skill.

Young jobseekers who want to learn a skill through on-the-job training may receive, in addition to job training, individual counseling, instruction in basic educational courses, such as mathematics and reading, and other supplementary instruction as an integral part of the on-the-job training, that will help them to become suitably trained for a job. This combined training is sometimes called a "coupled project." While in training they also may get allowances and may even work up to 20 hours on a part-time job. The training periods range from 4 to 104 weeks, depending on the skill being learned.

If this kind of training program interests you, visit your local State Employment Service office and ask for information. When you visit this office, you very likely will be told to go to a Youth Opportunity Center (YOC). This center was set up especially for you, to help young jobseekers like yourself. The employment personnel in this center carry out the training programs and services available to you. However, not every local State Employment Service office has a YOC. Nevertheless, you will receive the same kind of help from personnel in a youth-service unit in the local State Employment Service office that does not have a YOC.

INSTITUTIONAL TRAINING PROGRAM

Institutional training is given in either a private or a public school, in a Skill Training Center, or at a Job Corps center. It makes no difference which institutional training young people select. Besides job training, they all may receive counseling, instruction in basic educational courses, such as mathematics and reading, and several other services that will further their work skills and learning.

Young people enrolled in a vocational school or a Skill Training Center usually live at home and attend training sessions during the day. They also may get allowances while in training and may even work up to 20 hours on a part-time job. Those in a Job Corps center, however, live at the center during their entire training period. In addition to free room and board, clothing, and other necessaries, they also get an allowance. The training periods at any of these institutions may last as long as 2 years. Most, however, are much less than 2 years.

If institutional training appeals to you, contact the Youth Opportunity Center in your local State Employment Service office.

PREAPPRENTICESHIP PROGRAM

Preapprenticeship, as the name implies, prepares young persons for formal apprenticeship programs. It is a new kind of job-training program that has been set up especially to help young people who lack the necessary education to qualify for apprenticeship. This kind of training, like that of apprenticeship, leads to highly skilled work with very good pay. It usually consists of on-the-job training and related classroom instructions for a fixed period. After completing their training periods, preapprenticeship graduates move into formal apprenticeship programs. Many young men and women like this kind of training for the same reasons that others like apprenticeships.

If you want to become a journeyman in a craft or skilled trade, but do not meet the high standards and qualifications required to become an apprentice, take advantage of the preapprenticeship programs. Information on the numbers and kinds of such programs is available at the YOC in your local State Employment Service office.

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WORK-TRAINING PROGRAM

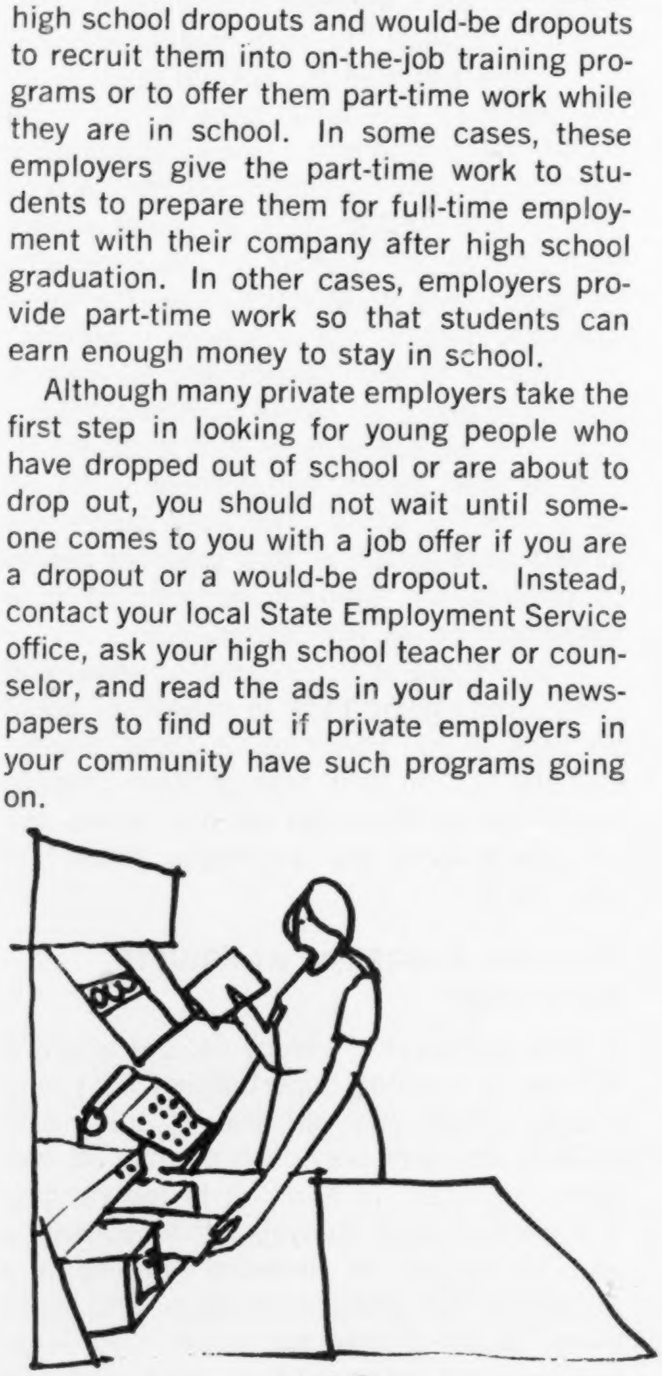
Work-training programs help out-of-school young people, whether dropouts or high school graduates, to earn money and get some work experience. Several community organizations are busy carrying on such work-training programs. One such organization is called the Neighborhood Youth Corps (NYC). The NYC deals with young people from 16 through 21 years of age, especially those who need training the most. For those who have dropped out of school, it provides the chance to earn money and to learn a skill by working on useful community projects. The workweek is limited to 32 hours, and, in most cases, employment is for no more then 6 months. The work experience gained as a result of this program serves as training for full-time employment in a job related to the work experience.

If you're out of school, out of work, and don't intend going back to school, or could go back if you could make some money, visit the YOC in your nearest State Employment Service office and tell one of the persons there about your problems. You'll find help there.

TRAINING PROGRAMS BY PRIVATE EMPLOYERS

Private employers have by far the greatest number of training opportunities for young people. They offer all five of the major training programs previously mentioned, and others besides. In addition to job training and work training, they also give counseling and instruction in remedial reading and arithmetic to young jobseekers who need them. Many private employers from local business and industrial firms work with high school teachers and principals, local State Employment Service personnel, and local community leaders to obtain the names of high school dropouts and would-be dropouts to recruit them into on-the-job training programs or to offer them part-time work while they are in school. In some cases, these employers give the part-time work to students to prepare them for full-time employment with their company after high school graduation. In other cases, employers provide part-time work so that students can earn enough money to stay in school.

Although many private employers take the first step in looking for young people who have dropped out of school or are about to drop out, you should not wait until someone comes to you with a job offer if you are a dropout or a would-be dropout. Instead, contact your local State Employment Service office, ask your high school teacher or counselor, and read the ads in your daily newspapers to find out if private employers in your community have such programs going on.



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Part-Time and Temporary Employment

Many students work from time to time while they are still in school, either after school hours or during vacations. By working part-time or during the summer, students gain work experience that may be very useful in obtaining a full-time job after their graduation. For some students, such work is an experiment for them. They find out what kind of work they like and don't like. In addition, many of them use the money earned from a part-time or temporary job to help meet the expenses of going to school. For others, such work is the source of extra spending money.

In many parts of the country, the State Employment Service works with local schools, businesses, and industries to set up programs that combine on-the-job training and continued education for students. These programs usually run throughout the school year and may offer the opportunity to earn credits towards high school graduation. They also may include training courses at the employer's establishment or at the school.

If you have had some part-time or temporary work, think about what you have learned and how you may use it toward choosing and getting a full-time job. If you are interested in on-the-job training that relates to your educational or vocational goal, see your high school counselor, teacher, or principal for more information. Also visit your local State Employment Service office and ask for more information.

14.

Job Outlook

Before you make a final decision on the job you want, you must be sure that it has a good future. Making sure that your job will be around for a while is a very important consideration for you. The purpose of work is to satisfy human wants and needs—to supply people with food, clothing, houses, automobiles, medical and dental care, education, recreation, and many other products and services. As the population becomes larger and larger, the need to find better and faster ways of making and doing things also becomes greater and greater. And, as a result of human effort, new machines, tools, and instruments, new uses of raw materials, and new processes of carrying out work come into use and change existing occupations and industries in many different ways. Some occupations increase in number. Other occupations decrease in number. Some even disappear from the work scene. Industries, too, grow, decline, and die. With some knowledge of the changes that occur in industries and occupations, you'll be in a better position to choose a job with a bright future.

JOB OPENINGS

However, to understand how these various industrial and occupational changes relate to your job choice, you'll need to know how job openings arise. Job openings become available when workers have to be replaced because of death, retirement, or they leave for other reasons, and when additional workers have to be hired because the amount of work to be done increases. If the latter case is true of your job, you can expect it to be around for a while because the occupation is growing.

EXPECTED EMPLOYMENT CHANGES IN INDUSTRY GROUPS

Well, what does the future look like at this time? The number of young people between 16 and 22 years of age either working or looking for work in 1975 will be about 15 million. This is almost twice the number (over 9 million) of young people who were working or looking for work in 1965. Where will all these young jobseekers find work? An answer to these questions may be found by looking at some of the employment changes that are in prospect for industries during the next 8 or 10 years.

The number of workers in on-farm agricultural production, for instance, is expected to decrease rapidly. At the same time, there will continue to be an increase in off-farm agricultural occupation opportunities. Many young persons in rural areas for whom the future does not look good for entrance into farmwork will find worthwhile employment in agricultural supplies manufacturing and distribution, in agricultural products processing and marketing, and in performing services related to agricultural resources.

In **Mining** the employment of workers is not expected to grow at all. But employment will vary for individual industries within this group. The prospects for young jobseekers are somewhat brighter in **Mining** than for farmworkers in **Agriculture,** but still not very promising. What is expected in **Mining** is also looked for in **Transportation and Public Utilities.** Here, too, no change in the number of workers is foreseen. However, employment will vary among the individual industries. This group, as in **Agriculture** and

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Mining, holds limited promise for young jobseekers.

In contrast to those industries mentioned above, employment in **Manufacturing** industries as a group is predicted to increase considerably. Although employment will show differences among the individual industries, the outlook here is favorable for young jobseekers.

Employment is also expected to rise in **Wholesale and Retail Trade.** Another growing industry in which employment is expected to be very high is **Construction.** For this reason, the future looks good for those young persons who want jobs in these fields.

Still another industrial group that has been showing considerable growth and is expected to continue growing is **Services.** Examples of industries within this group are laundries, hotels and restaurants, business services, hospital and medical services, and domestic services. Employment prospects are good for young people seeking jobs of a service nature. Employment also is growing in **Finance, Insurance, and Real Estate.** This industry group, too, offers many job opportunities to young jobseekers.

Lastly, the number of workers in **Government** employment is also forecast to increase rapidly, but the employment growth will vary among the three different kinds of government. State and local governments will be the major sources of jobs for persons who want to go into government work. The Federal Government is not expected to change its employment needs very much. Such a forecast makes job opportunities in State and local governments very promising for young jobseekers.

EXPECTED EMPLOYMENT CHA
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barbers and beauty operators;
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EXPECTED EMPLOYMENT CHANGES IN OCCUPATIONAL GROUPS

The expected changes in industry groups tell where workers probably will find jobs, but they do not tell what kinds of jobs will be available for jobseekers.

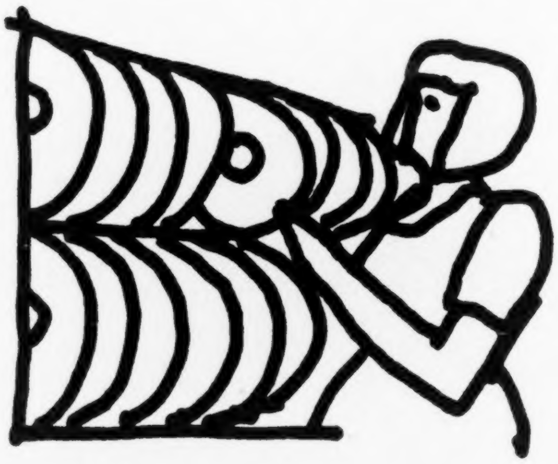
Jobseekers will find the greatest number of opportunities in professional and technical occupations. These will increase more rapidly than any other kind. Some of the particular occupations on the upswing are engineers, mathematicians, teachers, physicians, nurses, scientific and engineering technicians, and medical technologists and technicians. Job openings in clerical occupations are increasing just about as fast as those in professional and technical occupations. These include typists, secretaries, stenographers, office-machine operators, office clerks, and many others that are found in business. Occupations such as salespersons, salesmen, salesclerks, and routemen will also be available in great numbers.

Job opportunities in work having to do with providing services to others will also be plentiful. The occupations within this kind of work have increased considerably in the past few years and will continue to grow at a very rapid rate. Examples of such occupations are dayworkers, housekeepers, and maids; waitresses, waiters, chefs, and cooks; barbers and beauty operators; hospital attendants and practical nurses; laundry workers; and firemen and policemen.

More workers will be needed in occupations that involve highly skilled work. This group includes machinists; tool-and-die makers; drill-press operators; lathe operators; mechanics and repairmen of motor vehicles, aircrafts, industrial machinery and equipment, and business machines; typesetters; dental-laboratory technicians; radio-and-television repairmen; electronics mechanics; welders; electricians; painters; brick and stone masons; plumbers; roofers; and many others.

Although occupations that involve semiskilled work also will offer many opportunities, they are not increasing as fast as they did in the past. This kind of work covers a wide range of occupations found in many different kinds of industries. Examples are assemblers of parts and products in factories; bus, truck, and cabdrivers; machine operators and machine tenders; buffers, polishers, and grinders of parts and products in factories; and many others.

Fewer opportunities will be available for jobseekers in on-farm occupations, and jobs as laborers other than those on farms also will be very limited. The number of workers in both kinds of work is decreasing as the work requires higher skills. Examples of on-farm occupations on the decrease are farmhand, farm foreman, farmer, and farm manager. These jobs are becoming more competitive with those in comparable industries.



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Getting the Job You Want

When you have made your occupational choice and are ready to look for a job, you must contact all possible places of employment and all persons who can help you get a job. It's all up to you at this point. Because other young people also will be searching for employment, the more places you go and the more people you see, the better your chances will be of getting a job. Moreover, you must be prepared for job interviews with prospective employers. Your success or failure in getting the job depends a great deal on the impression you give when talking to future employers.

JOB SOURCES

As a start, register at the local office of your State Employment Service. This office has orders for workers from many employers and for many different kinds of jobs. It can also contact employers to find a suitable job for you if there is none available at the time you register.

Talk to friends, relatives, and neighbors. They may know about job openings. It will be especially good to talk with people who do the kind of work in which you're interested. Most people like to talk about the work they do, and they may have first-hand information on openings.

Read and answer the "want ads" in newspapers and trade journals. Go to the appropriate local union if hiring in the occupation you have chosen is generally done through a union. In addition, contact, either in person or by letter, companies employing workers in your field. The names of such companies are in the classified telephone directory or in local and State industrial directories. Inquire at the job placement office at your school if it has one and other places, such as the "Y."

If you want to become an apprentice, consult the local State Employment Service office and ask about training opportunities for skilled trades. Contact officials in industries, labor unions, trade associations, Apprenticeship Information Centers (if one is in your town), and members of local joint apprenticeship committees, Bureau of Apprenticeship and Training, U.S. Department of Labor, or State Apprenticeship agency about apprenticeship opportunities in your area.

To get most Federal, State, or local government jobs, you will have to apply for and take a civil service examination. Go to your post office or local civil service office and fill out an application. You will be notified when to take the test, after which you will be notified about your score.

THE INTERVIEW

Since the job interview with a future employer is very important, you must be prepared for it. Organize your thoughts and information beforehand. Learn as much as you can about the firm where you are applying for a job and know something about its products or its services. Be able to say why you want to work for THAT company. Take along papers such as your social security card, health certificate, union membership card, proof of age, any licenses that may be required, and your military records. Have your school and work records handy and know the names and addresses of your past employers as well as the exact dates that you worked for them. For some jobs, such as those in artwork and writing, it is always helpful and may be necessary to bring along samples of your work, an outline of your training, and copies of any recommendations you have.

When you go for an interview, arrive on time and let the receptionist know who you are and whom you wish to see. Be sure that your clothes are clean and neat and that you are well groomed. But don't "overdress." Don't be surprised if you're asked to be interviewed by more than one person or to take tests of your abilities. Don't bring along friends or relatives; you are the one that the interviewer is interested in.

During the interview let the interviewer or employer take the lead in talking. Answer his questions in a pleasant but brief and businesslike way, and don't be afraid to ask him about the job and the company, because your questions show that you are both interested in and serious about the job. Finally, express your appreciation at the close of the interview.

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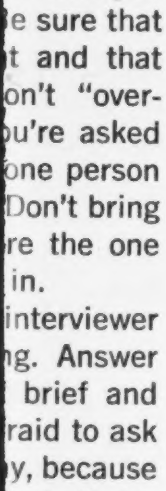

Occupational Briefs

To get an idea of what you should know about a particular job that interests you, you should study a few of the 82 Occupational Briefs that begin on page 22. These Occupational Briefs contain information on 150 jobs. Each brief consists of six sections Following the job titles of each brief, the first section is a description of the usual duties that the fully qualified worker performs. Since the apprentice is not a fully qualified worker, his beginning duties are given in general in the Occupational Brief entitled "Apprentice—General Comments." He learns all the tasks of the journeyman worker.

The second section states some of the important characteristics of the jobs you should know about. The details include some of the environmental conditions in which the work is carried out, and some of the special features of the jobs, such as availability of overtime, seasonality of the work, kind of work schedule, and the provision of tools or work uniforms.

The third section deals with the requirements and qualifications employers expect you to have. This section is made up of the following items: (1) amount and kind of training required; (2) degree of education required; (3) names of school courses useful in getting and doing the jobs; (4) age limits, when considered a true qualification; (5) tests or examinations given; (6) licenses or certificates required; and (7) physical, personal, or social qualities necessary or desirable.

The last three sections of the briefs give information on employment prospects, advancement opportunities, and how to find the jobs. The first of these sections

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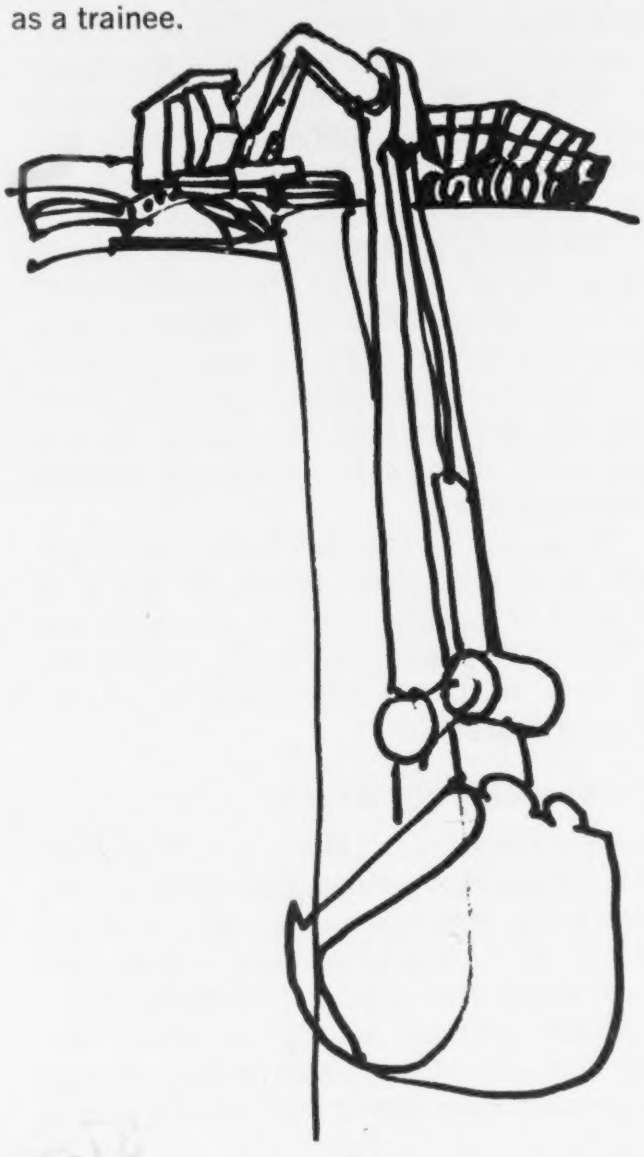
relates to the expected job openings of the particular jobs and the reasons for these expected job openings. The second section contains names of jobs that have promotional possibilities, and also mentions other ways of advancement. The last section gives names of places to go and people to see to find the jobs, including names of officials and organizations which will supply you with more information.

Most of the jobs mentioned in the briefs are available to the young jobseeker with a high school education. Some are available to young people with less than a full-high school education. Others require some education beyond high school in a vocational or technical institute, or several years of training besides a high school education. Examples of the latter kinds of jobs are medical-laboratory assistant, diesel mechanic, carpenter, plumber, and dental laboratory technician. Journeyman or highly skilled jobs require extensive training in addition to a high school education. These jobs, therefore, are not immediately available to young people. Jobs as apprentices and helpers related to these journeyman or skilled jobs are good starting points.

Jobs that have the journeyman-apprentice relationships and which also have helpers to skilled workers are treated in the same Occupational Brief to conveniently present to you this related information.

The word "trainee" does not appear as part of any job title in the Occupational Briefs, although every job requires training. The training period may range from a day or two to several years. As a beginning worker, therefore, you may be called a trainee. This name, however, most often would not be part of your job title. On the other hand, some employers put "want ads" in the daily newspapers for trainees instead of apprentices. Examples of such jobs are automobile-mechanic trainee and office-machine trainee. Since this is a practice of some employers, you should keep it in mind when reading about apprentice jobs in the Occupational Briefs. If you cannot get an apprenticeship, you may still be able to enter into such work as a trainee.



Apprentice— General Comments

USUAL DUTIES

An apprentice is a worker who learns, according to a formal apprenticeship agreement, a recognized skilled trade requiring 2 or more years of on-the-job work experience and related instruction. He learns very early in his apprenticeship how to use, care for, and safely handle the tools and equipment that he is to use in his work. Then he learns the tasks of the journeyman in a step-by-step manner. The apprenticeship agreement usually includes the length of time of the apprenticeship, the amount and scale of the apprentice's wages, the work processes to be learned, and the amount of classroom instruction to be given.

The word "apprentice" is often used to name workers for whom the word "helper" or "learner" would be more correct. Unless there is a formal contract, the employer is not legally required to fulfill his part of the training program, and the worker has no guarantee he will receive adequate apprenticeship training.

An apprentice is called by the job title of the journeyman from whom he learns a trade or occupation, such as electrician apprentice, carpenter apprentice, barber apprentice, machinist apprentice, or cosmetologist apprentice.

CHARACTERISTICS OF JOB

Apprentices learn and earn at the same time. Their wages during their learning period are very good. And, as journeymen, they are among the best paid workers. Trades and occupations that require completion of an apprenticeship are usually unionized. Apprentices are often rotated among various phases of a trade during their training period in order to give them as much experience of the whole trade as is possible within this time.

Some employers furnish tools for the apprentices and, after completion of their training, give the tools to them. Other employers require the apprentices to acquire their own tools during their training. In this latter case some employers lend the necessary money to the apprentices for the purchase of the tools.

QUALIFICATIONS

Apprenticeship programs vary from 2 to 5 years or more, depending on the particular trade or occupation. Apprentices must successfully complete a specified amount of classroom instruction and a definite amount of on-the-job training to become journeymen.

Generally, applicants for apprenticeships in the skilled trades and occupations must have a high school education or its equivalent. Even in cases where a high school education is not required, the applicants having it are given preference over others who don't have it. Courses in mathematics, physics, English, chemistry, drafting, mechanical drawing, blueprint reading, machine shop, and woodworking shop will be very useful to apprentices, depending on the work.

Where age is a recognized requirement, applicants for apprenticeships must usually be between the ages of 16 and 27, and the upper age limit is extended to 30. This extension especially applies to veterans.

Applicants for apprenticeships may be required to take tests to determine their aptitude for the trade.

Apprentices, generally, must be in good

physical condition, agile, and able to work rapidly and accurately with their hands and fingers when using handtools and precision-measuring instruments. They usually must have good eyesight to carry out their duties.

EMPLOYMENT PROSPECTS

There are over 350 apprenticeable occupations in the various trades. However, opportunities for apprentices are limited in most fields, varying among the trades and the communities. Usually there are many more applicants than there are openings. Jobs are almost entirely for men.

At the end of 1964, there were over 170,000 registered apprentices. A registered program is one that has met the standards of, and has been approved by, either a State apprenticeship agency or the Bureau of Apprenticeship and Training of the U.S. Department of Labor. There were also a considerable number of apprentices in programs that were not registered. It is estimated that about 50,000 jobs become available each year under the registered apprentice program. In addition, many opportunities are available for applicants in nonregistered programs.

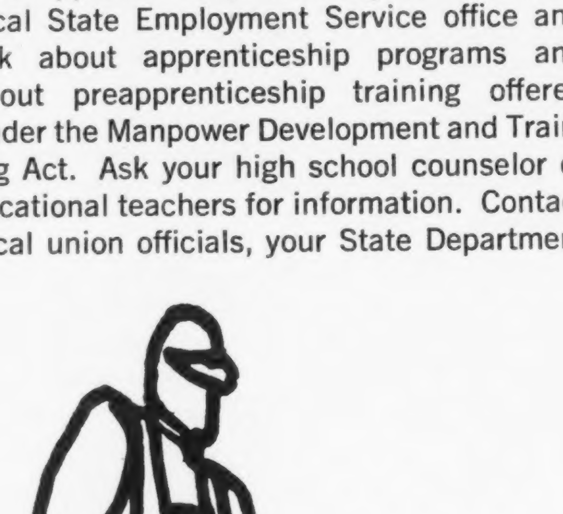
ADVANCEMENT OPPORTUNITIES

An apprentice advances to a journeyman upon successful completion of his training period. During his training, advancement is in the form of higher wages. He receives an increase in wages periodically, usually every 6 months.

After he has become an experienced journeyman, he may then advance to a foreman or some other supervisory position. He may even advance to a managerial position. He also may go into business for himself by opening his own trade shop or a contracting firm.

FINDING THE JOB

Apply directly to employers or contractors in the trade or occupations in which you are interested. Contact members of your local joint apprenticeship committees. Visit your local State Employment Service office and ask about apprenticeship programs and about preapprenticeship training offered under the Manpower Development and Training Act. Ask your high school counselor or vocational teachers for information. Contact local union officials, your State Department



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FINDING THE JOB

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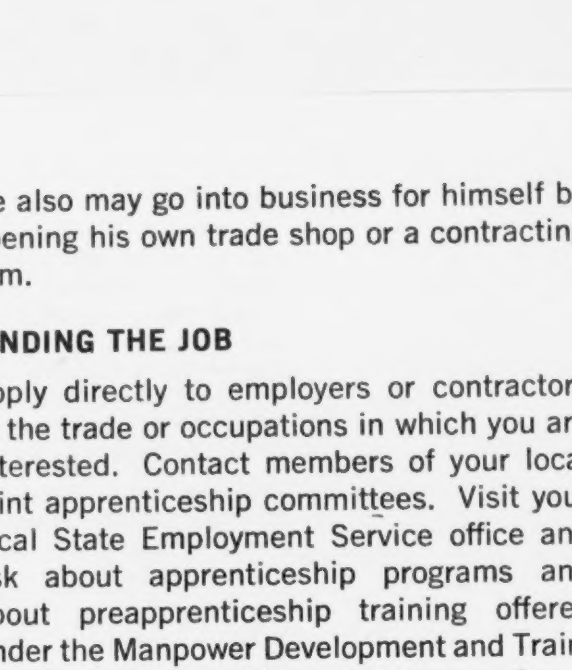
See the section on "Apprenticeship and Apprentices" on page 189 for the names of publications that contain additional and useful information on apprentices and apprenticeships. See "Finding the Job" section in the individual Occupational Brief that deals with a particular apprenticeable job.



PROFESSIONAL,
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Usual Duties

The Dental Assistant performs a variety of duties in a dentist's office. When patients visit the dentist, she greets them, makes them comfortable, and prepares them for examination, treatment, or surgery. She also sees to it that instruments are sterilized and ready for use, and helps the dentist while the patient is in the dental chair.

In some offices she prepares solutions, mixes fillings and cement, and aids the dentist in taking and processing X-rays.

She also answers the telephone, makes appointments, orders supplies, handles business transactions, keeps patients' records, sends out monthly statements, and maintain tax records.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings and Saturday work at dental clinics and hospitals. Work is performed indoors in pleasant surroundings.

Some employers require you to furnish your own work uniforms.

Qualifications

To become a Dental Assistant, you must complete either an on-the-job training program that lasts from 1 to 2 years or a 1-year training program in dental assisting offered at some dental schools and community colleges. To qualify for on-the-job training, you must have at least a high school education. Courses in general science, chemistry, biology, typing, and bookkeeping will be very useful to you.

You must be physically able to stand and walk for long periods of time and to work rapidly and accurately with your hands and fingers when typing, assisting in laboratory and X-ray work, handling and sterilizing instruments, preparing solutions, and mixing fillings and cement. You must have good eyesight to keep accurate accounts of appointments and records of treatments.

You must have a pleasant disposition and be tactful, neat, alert, and have a good memory for names to get along well with the patients.

Employment Prospects

There will be many thousands of job openings for Dental Assistants during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the demand for more Dental Assistants to meet the dental needs resulting from the expected increase in population. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at hospitals and dental clinics in large cities.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Dental
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Advancement Opportunities

As an experienced Dental Assistant, you may advance to a job of office supervisor in large offices, hospitals, and clinics. When working for individual dentists, advancement is in the form of salary increases.

Finding the Job

Apply directly at the employment or personnel office of any local hospital, health agency, dental clinic, and at the office of any dentist. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

American Dental Assistants' Association
410 First National Bank Building
La Porte, Ind. 46350

PROFESSIONAL,
TECHNICAL,
AND MANAGERIAL
OCCUPATIONS

licensed practical nurse

Usual Duties

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Usual Duties

The Licensed Practical Nurse assists in caring for medical and surgical patients, convalescents, handicapped people, and others who are physically or mentally ill. Under the direction of physicians and professional nurses, she provides nursing care which requires technical knowledge but not the professional training of a registered nurse. Her many duties usually differ according to where she works.

In hospitals, she works as a member of a nursing team, providing much of the routine bedside care of patients who are not critically ill by performing such tasks as taking and recording temperature and blood pressures, changing dressings, and giving hypodermic injections. When surgical patients are in the recovery room, she helps the registered nurse by watching for and reporting any adverse changes in patients recovering from the effects of anesthesia.

When working in physicans' offices and in clinics, she performs routine tasks similar to those provided to patients in a hospital and may do clerical work such as making appointments and keeping records about patients.

When employed in private homes, she provides nursing care as ordered by the patient's physican and provides personal care, such as preparing and serving the patient's meals and keeping his room clean and neat.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Work is performed indoors in pleasant surroundings.

If work is in private homes, employer usually requires you to furnish your own work uniforms. Some hospitals furnish work uniforms.

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Qualifications

To qualify for admission as a beginning worker for this job, you must have a minimum of 2 years of high school education or its equivalent plus completion of a 1-year State-controlled training course. Courses in biology, home economics, and personal hygiene will be very useful. The training course consists of classroom and clinical practice work. Upon completion of the course you must pass an examination in order to get your license. To apply for admission to this training course, you must be between 17 and 50 years of age. Tests to determine your aptitude for the trade and physical examinations are usually required.

You must be physically able to stand and walk for long periods of time.

You must be friendly, patient, tactful, alert, dependable, and be able to get along well with people.

Employment Prospects

There will be about 390,000 job openings for Licensed Practical Nurses during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Licensed Practical Nurses to meet the needs of continued rapid expansion of health facilities and the increased importance placed upon the use of Licensed Practical Nurses in hospital nursing teams. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at hospitals and nursing homes in medical centers in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Licensed Prac
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Advancement Opportunities

As an experienced Licensed Practical Nurse, you may advance to a job in a specialized area, such as rehabilitation, and to a supervisory job in a large hospital.

Finding the Job

Apply directly at the employment or personnel office of any local hospital, nursing home, medical clinic, industrial plant, any government health agency, and at the office of any physican. Register at your local State Employment Service office. Ask your high school counselor or trade school instructor for information. Read the ads in your daily newspapers. Visit the office of the local Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

National League for Nursing
Committee on Careers
10 Columbus Circle
New York, N.Y. 10019

National Association for Practical Nurse
Education and Service, Inc.
535 Fifth Avenue
New York, N.Y. 10017

National Federation of Licensed
Practical Nurses, Inc.
250 West 57th Street
New York, N.Y. 10019

For information about employment opportunities in the U.S. Veterans Administration hospitals, write to:

Department of Medicine and Surgery
Veterans Administration
Washington, D.C. 20420

PROFESSIONAL,
TECHNICAL,
AND MANAGERIAL
OCCUPATIONS

medical assistant

Usual Duties

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Usual Duties

The Medical Assistant performs a variety of duties under the direction of a physican in the examination and treatment of patients. She prepares the instruments and equipment to be used by the physican and helps prepare the patient for examination and treatment. She sees to it that instruments are sterilized and ready for use.

Before the physican begins his examination and treatment of the patient, she performs routine tasks such as taking and recording the patient's pulse, temperature, blood pressure, and weight. During the examination and treatment by the physician, she hands him instruments and materials, applies medication, gives injections, and otherwise assists him as directed.

In some offices she takes inventory of supplies and keeps the physician informed so that he can order whatever is needed.

She may also schedule appointments, receive payment for bills, and keep medical records.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings and weekend work at medical clinics and hospitals. Work is performed indoors in pleasant surroundings.

Some employers require you to furnish your own work uniforms.

Qualifications

To become a Medical Assistant, you must complete either from 1 to 2 years of on-the-job training or a 1- or 2-year training program in medical assisting offered in some colleges and technical schools. To qualify for an on-the-job training program, you must have at least a high school education. Courses in general science, chemistry, biology, medical terminology, office methods, and medical laboratory procedures will be very useful to you.

You must be physically able to stand and walk for long periods of time. You must be able to work rapidly and accurately with your hands and fingers when handing instruments and materials to the physician, handling and sterilizing instruments, and when applying medication to the patient. You must have good eyesight to take the patient's temperature and blood pressure, to give injections, and keep medical records accurately.

You must have a pleasant disposition and be tactful, neat, alert, and have a good memory for names to get along well with the patients.

Employment Prospects

There will be many thousands of job openings for Medical Assistants during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the demand for more Medical Assistants to meet the medical needs resulting from the expected increase in population. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at hospitals and medical clinics in large cities.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Medical As
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power Development and Training

Advancement Opportunities

As an experienced Medical Assistant, you may advance to a job of office supervisor in large offices, hospitals, and medical clinics. When working for an individual physician, advancement is in the form of salary increases.

Finding the Job

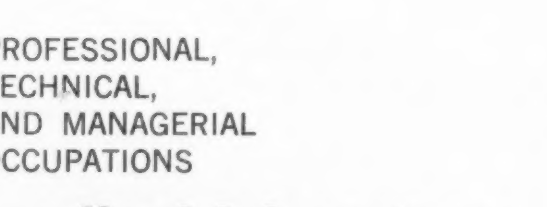
Apply directly at the employment or personnel office of any local health agency, hospital, medical clinic, and at the office of any physician. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

American Association of Medical
Assistants, Inc.
510 North Dearborn Street, Suite 926
Chicago, Ill. 60610

PROFESSIONAL,
TECHNICAL,
AND MANAGERIAL
OCCUPATIONS

medical-laboratory assistant



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Usual Duties

The Medical-Laboratory Assistant performs routine tests in a medical laboratory for use in the treatment and diagnosis of disease. He works under the direct supervision of a medical technologist and a pathologist when performing the simpler laboratory procedures in bacteriology, blood banking, chemistry, hematology, parasitology, serology, and urinalysis.

Some of the tasks he performs include collecting blood specimens, grouping and typing blood, preparing and staining slides for micro-organisms, concentrating specimens for parasitologic study, analyzing blood and body fluids for chemical components, microscopic examination of urine, blood and body fluids, and taking electrocardiograms and basal metabolism tests.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include nights and weekends. Work is performed indoors in pleasant surroundings.

Some employers require you to furnish your own work uniforms.

Qualifications

To qualify for admission as a beginning worker for this job, you must have a high school education plus successful completion of a specialized 1-year training course accredited by the American Society of Medical Technologists. This college-level course includes at least 100 hours of classroom instruction and 40 to 44 hours a week of laboratory training. High school courses in chemistry, science, and mathmatics will be very useful to you. You may be required to take tests to determine your aptitude for the work. You must submit a complete transcript of your courses and grades and a physician's certificate of your state of health when applying for the training course.

You must be physically able to work rapidly and accurately with your hands and fingers when using instruments and work aids when performing laboratory tests. You must have good eyesight to prepare vaccines, prepare and stain slides for micro-organisms, and concentrate specimens for parasitologic study by a physician.

Employment Prospects

There will be about 84,000 job openings for Medical-Laboratory Assistants during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the need for more Medical-Laboratory Assistants to meet the needs of rapidly expanding hospital and medical programs. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at hospitals and independent medical laboratories in medical centers, which usually are located in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Medical-Laborat
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With further specialized training
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completion of 3 years of college,
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the more complicated and highly
technical laboratory procedures.

Prospects

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Advancement Opportunities

As an experienced Medical-Laboratory Assistant, your advancement may be in the form of salary increases. Without additional formal training, advancement opportunities are very limited.

With further specialized training in courses accredited by the American Society of Medical Technologists and completion of 3 years of college, you may advance from a Medical-Laboratory Assistant to a professional medical technologist, who performs the more complicated and highly technical laboratory procedures.

Finding the Job

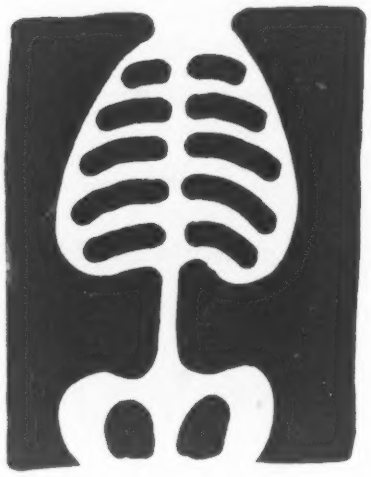
Apply directly at the employment or personnel office of any local hospital, medical laboratory, medical research organization, public health agency, and contact any approved Certified Laboratory Assistants' (CLA) school. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the office of the local Civil Service Commission or your local post office and ask for information.

For more information on this kind of work and for approved CLA schools in your area, write to:

Secretary, Board of Certified Laboratory Assistants
9500 South California Avenue
Evergreen Park, Ill. 60642

PROFESSIONAL,
TECHNICAL,
AND MANAGERIAL
OCCUPATIONS

x-ray technician



Usual Duties

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Department of M
Veterans Adminis
Washington, D.C.

Usual Duties

The X-Ray Technician operates X-ray equipment to take pictures used by a physician in diagnosing illnesses and regulates special X-ray equipment used for treatment.

In preparation for taking X-ray pictures for diagnostic purposes, he gives the patient a chemical mixture to drink so that his internal organs become shaded and will be visible when the pictures are taken. Then, he positions the patient between the X-ray tube and the film and covers the body areas that are not to be exposed to the rays with protective plates. He sets controls of the X-ray equipment to the proper voltage, current, and time of exposure, and takes the pictures. He also develops the X-ray film according to photographic techniques and submits the pictures for interpretation by the physician.

He gives X-ray treatments only under the supervision of a physician. After placing the patient in the proper position, he sets controls on special X-ray equipment from an adjoining room and treats diseased areas of the body by exposing the areas to specified concentration of X-rays for prescribed periods of time.

He prepares reports and maintains records of services performed for patients.

For information about employment opportunities in the U.S. Veterans Administration hospitals, write to:

Department of Medicine and Surgery
Veterans Administration
Washington, D.C. 20420

Characteristics of Job

Work is steady throughout the year usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Worker may be required to be on 24-hour call in case of emergency. Work is performed indoors in pleasant surroundings.

Work is considered as hazardous, but precautionary safety devices such as lead aprons, rubber golves, and other protective shieldings are used for protection against the possible hazards of radiation exposure.

Most employers furnish work unifoms.

Qualifications

To become an X-Ray Technician, you must complete 2 years on-the-job training under the direction of a radiologist. To qualify for admission as a beginning worker for this job, you must have at least a high school education. Courses in mathematics, physics, chemistry, biology, and typing will be very useful to you. You usually must be at least 18 years of age.

You must be physically able to stand for long periods of time and to work rapidly and accurately with your hands and fingers when turning knobs, adjusting controls, and flipping switches to operate fluoroscopic equipment. You must have good eyesight to adjust X-ray equipment to the correct setting of the proper voltage, current, and exposure time for each radiograph.

You must be patient, tactful, and courteous to get along well with the patient.

Employment Prospects

There will be about 63,000 job openings for X-Ray Technicians during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the need for more X-Ray Technicians to meet the needs of rapidly expanding hospital and medical programs. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at hospitals in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Oppo

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Employment Prospects

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Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at hospitals in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced X-Ray Technician, you may advance to a job as chief X-ray technician in a large hospital or medical laboratory.

Finding the Job

Apply directly at the employment or personnel office of any local hospital, medical clinic, dental clinic, medical laboratory, Federal or State health agency, and to the office of any physician or dentist. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local medical schools and hospitals for information.

Read the ads in your daily newspapers. Visit the office of the local Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

The American Society of Radiologic Technologists
537 South Main Street
Fond du Lac, Wis. 54935

The American Registry of Radiologic Technologists
2600 Wayzata Boulevard
Minneapolis, Minn. 55405

CLERICAL
AND SALES
OCCUPATIONS

bookkeeping clerk

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Usual Duties

The Bookkeeping Clerk helps keep the records of financial transactions of an establishment. First, he verifies the accuracy of figures as shown on such items as sales slips, invoices, and purchase orders by using adding or calculating machines. Then, under the direction of an experienced or head bookkeeper, he posts these figures in designated journals and ledgers.

He may also help make up the payroll by computing wages or verifying the payroll figures prepared by another worker.

In addition, he may perform such clerical duties as typing correspondence, filing bookkeeping records, preparing and mailing statements to customers, and making bank deposits.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Bookkeeping Clerk, you must complete about 6 months of on-the-job training. To qualify as a beginning worker for this job, you usually must have at least a high school education. Courses in mathematics, typing, bookkeeping, and the operation of business machines will be very useful to you.

You must be able to work rapidly and accurately with your hands and fingers when posting daily financial transactions. You must have good eyesight and concentration to record bookkeeping data in books.

Employment Prospects

There will be many thousands of job openings for Bookkeeping Clerks during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the need for more Bookkeeping Clerks to handle the rapidly increasing volume of financial records in business. As a result, your chances of getting a job are very good.

Jobs are found in all communities and in many establishments. Good chances for finding employment will be at wholesale and retail firms and governmental agencies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Bookkeeping Clerk, you may advance to a supervisory job. With further training through business courses from correspondence schools or in colleges, you may advance to a job as an accountant.

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Employment Prospects

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Jobs are found in all communities and in many establishments. Good chances for finding employment will be at wholesale and retail firms and governmental agencies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Bookkeeping Clerk, you may advance to a supervisory job. With further training through business courses from correspondence schools or in colleges, you may advance to a job as an accountant.

Finding the Job

Apply directly at the employment or personnel office of any local wholesale or retail firm, bank, utility, insurance, or transportation company, manufacturing firm, or government agency. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspaper. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

Bureau of Educational Assistance
Programs
Division of Vocational and Technical
Education
U.S. Office of Education
Washington, D.C. 20202

The National Association and Council
of Business Schools
1518 K Street, NW.
Washington, D.C. 20005

CLERICAL
AND SALES
OCCUPATIONS

bookkeeping-machine operator

Usual Duties

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Usual Duties

The Bookkeeping-Machine Operator keeps financial business records, using an electric bookkeeping machine with a keyboard. He sorts the materials that he is to record or post and puts the correct form into the machine. He then presses the keys to record the identifying information and figures. When he has completed a set of figures, the machine computes the totals. After this, he checks his own work to make sure that it is correct.

He frequently prepares copies of permanent records, such as customers' invoices.

He may also operate other office machines and have other clerical duties.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 35- or 40-hour workweek. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Bookkeeping-Machine Operator, you must complete about 6 months of on-the-job training. To qualify as a beginning worker for this job, you must have at least a high school education. Courses in business mathematics, bookkeeping, typing, and the operation of business machines will be very useful to you.

You must be able to work rapidly and accurately with your hands and fingers when typing and using office machines. You must have good eyesight to feed numbers into the bookkeeping machine.

Employment Prospects

There will be many thousands of job openings for Bookkeeping-Machine Operators during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the need for more Bookkeeping-Machine Operators to handle the rapidly increasing volume of financial records in business. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for employment will be at wholesale and retail firms, banks, utility, insurance, and transportation companies, and governmental agencies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Bookkeeping-Machine Operator, you may advance to a supervisory bookkeeping job. With further training in business courses, you may advance to such jobs as statistical clerk or bookkeeper.

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Advancement Opportunities

As an experienced Bookkeeping-Machine Operator, you may advance to a supervisory bookkeeping job. With further training in business courses, you may advance to such jobs as statistical clerk or bookkeeper.

Finding the Job

Apply directly at the employment or personnel office of any local wholesale or retail firm, bank, utility, insurance, or transportation company, manufacturing firm, or government agency. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

Bureau of Educational Assistance
Programs
Division of Vocational and Technical
Education
U.S. Office of Education
Washington, D.C. 20202

The National Association and Council
of Business Schools
1518 K Street, NW.
Washington, D.C. 20005

CLERICAL
AND SALES
OCCUPATIONS

calculating-machine operator; adding-machine operator

Usual Duties

The Calculating-Mac
Adding-Machine Op
computing and reco
business records an
The Calculating-Mac
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automatically adds,
multiplies, divides,
He presses the keys
levers on the machin
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The Adding-Machine
manual or electric a
add or subtract figu
figures onto records

These operators ma
clerical duties.

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Usual Duties

The Calculating-Machine Operator and Adding-Machine Operator do the computing and recording necessary for business records and reports.

The Calculating-Machine Operator uses a manual or electric calculator which automatically adds, subtracts, multiplies, divides, and finds roots. He presses the keys and moves the levers on the machine to make his calculations and to record the results.

The Adding-Machine Operator uses a manual or electric adding machine to add or subtract figures. He copies the figures onto records or reports.

These operators may also perform other clerical duties.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Calculating-Machine Operator or Adding-Machine Operator, you must complete a few weeks of on-the-job training. To qualify as a beginning worker for either of these jobs, you usually must have a high school education. Courses in business mathematics, bookkeeping, and the operation of office machines will be very useful to you.

You must be able to work rapidly and accurately with your hands and fingers when using calculating and adding machines. You must have good eyesight and concentration in order to accurately feed figures into the machines.

Employment Prospects

There will be many thousands of job openings for Calculating-Machine Operators and Adding-Machine Operators during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the need for more Calculating-Machine Opertors and Adding-Machine Operators to do the computing and recording work that will result from an increase in the volume of business. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at big business centers in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunitie

As an experienced Calcula
Operator or Adding-Machi
you may advance to jobs o
more complex machines,
workers, or to supervisor
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With further training in th
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Advancement Opportunities

As an experienced Calculating-Machine Operator or Adding-Machine Opertor, you may advance to jobs of operating more complex machines, training new workers, or to supervisor of a section or department within the company. With further training in the use of new, more complicated equipment and in advanced business courses, you may advance to supervisory positions or department heads much more rapidly than by job experience alone.

Finding the Job

Apply directly at the employment or personnel office of any local manufacturing firm, finance, insurance, or real estate company, or government agency. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

Bureau of Educational Assistance
Programs
Division of Vocational and Technical
Education
U.S. Office of Education
Washington, D.C. 20202

The National Association and Council
of Business Schools
1518 K Street, NW.
Washington, D.C. 20005

CLERICAL
AND SALES
OCCUPATIONS

card-tape-converter operator; high-speed-printer operator

Usual Duties

The Card-Tape-Converter Operator runs a machine that copies information from punchcards onto tapes or from tapes onto punchcards. He wires the plugboard of the machine, puts the stacks of cards and reels of tape in the machine, and starts the reading and recording machines. While the machines are transcribing information, he must watch for and correct errors. When the run is completed, he marks identification data on the reels of tape or drawers of cards and makes a record of his work.

The High-Speed-Printer Operator runs a printing machine that changes the information on tapes into printed records. He wires the plugboard of the machine, mounts the tapes, and puts the paper in the printer. He then starts the machine, checks it to make sure the printing can be read easily, watches for lights on the machine which indicate errors, and makes any necessary corrections. When the run is finished, he removes the printed records, and puts away the reels of tape.

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ter operator

Usual Duties

The Card-Tape-Converter Operator runs a machine that copies information from punchcards onto tapes or from tapes onto punchcards. He wires the plugboard of the machine, puts the stacks of cards and reels of tape in the machine, and starts the reading and recording machines. While the machines are transcribing information, he must watch for and correct errors. When the run is completed, he marks identification data on the reels of tape or drawers of cards and makes a record of his work.

The High-Speed-Printer Operator runs a printing machine that changes the information on tapes into printed records. He wires the plugboard of the machine, mounts the tapes, and puts the paper in the printer. He then starts the machine, checks it to make sure the printing can be read easily, watches for lights on the machine which indicate errors, and makes any necessary corrections. When the run is finished, he removes the printed records, and puts away the reels of tape.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Card-Tape-Converter Operator or High-Speed-Printer Operator, you must complete a few weeks of on-the-job training. To qualify as a beginning worker for either of these jobs, you must have a high school education. Courses in data processing machinery and business subjects will be very useful to you.

You must be physically able to stand or walk for long periods of time. You must also be able to lift and carry articles weighing up to 20 pounds at frequent intervals. You must have good eyesight with normal color vision to read labels, wire plugboards from diagrams, scan materials being transcribed for errors, and check the multicolored wiring of the plugboard.

Employment Prospects

There will be many thousands of job openings for Card-Tape-Converter Operators and High-Speed-Printer Operators during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the need for more Card-Tape-Converter Operators and High-Speed-Printer Operators to run the increasing number of data processing machines. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at commercial centers in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Card-Tape-Converter Operator or High-Speed-Printer Operator, you may advance to a job as computer-peripheral-equipment operator and eventually with more experience you may advance to a job as Digital-Computer Operator. With further training in electronic data processing equipment, you may advance to a job as programer.

Employment Prospects

There will be many thousands of job openings for Card-Tape-Converter Operators and High-Speed-Printer Operators during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the need for more Card-Tape-Converter Operators and High-Speed-Printer Operators to run the increasing number of data processing machines. As a result, your chances of getting a job are very good.

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Advancement Opportunities

As an experienced Card-Tape-Converter Operator or High-Speed-Printer Operator, you may advance to a job as computer-peripheral-equipment operator and eventually with more experience you may advance to a job as Digital-Computer Operator. With further training in electronic data processing equipment, you may advance to a job as programer.

Finding the Job

Apply directly at the employment or personnel office of any local insurance company, bank, transportation and public utility company, manufacturing firm, or any government agency that uses data processing machines. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspaper. Visit the local office of the Civil Service Commission or your local post office and ask for information.

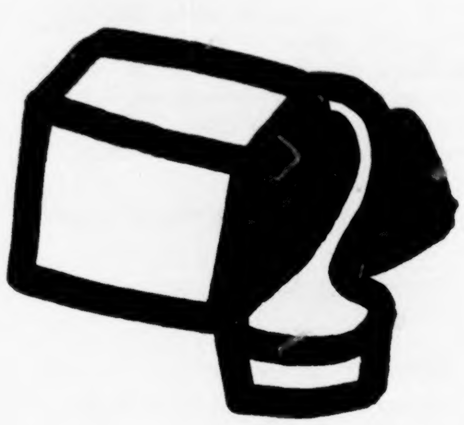
For more information on this kind of work, write to:

Data Processing Management
Association
524 Busse Highway
Park Ridge, Ill. 60068

Association for Computing Machinery
211 East 43rd Street
New York, N.Y. 10017

CLERICAL
AND SALES
OCCUPATIONS

cashier



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Usual Duties

The Cashier receives money from customers and makes change. She may make out bills or work with those prepared by others. She may use a cash register, adding machine, or change machine. She may keep a simple record of the money she receives and then balance this record with records of the sales for the day. She may also answer the telephone and wrap merchandise.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Work is performed indoors in pleasant surroundings.

Job may require you to be bonded.

Qualifications

To become a Cashier, you must complete a few months of on-the-job training. To qualify as a beginning worker for this job you usually must have a high school education. Courses in business arithmetic, bookkeeping, and any other business or commercial courses will be very useful to you.

You must be physically able to stand for long periods of time and to work rapidly and accurately with your hands and fingers when operating a cash register and adding machine. You must have good eyesight to accurately operate the cash register.

You must be friendly, patient, tactful, and neat to get along well with customers.

Employment Prospects

There will be about 600,000 job openings for Cashiers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the need for more Cashiers in the increasing volume of retail business. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at big business centers in large cities.

As a student you can usually obtain part-time work and summer work at almost any establishment in most communities. This kind of work is available to both men and women.

Training for this kind of work is available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportuniti

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Employment Prospects

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Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at big business centers in large cities.

As a student you can usually obtain part-time work and summer work at almost any establishment in most communities. This kind of work is available to both men and women.

Training for this kind of work is available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an expeienced Cashier, you may advance to a managerial job, especially in the larger establishments. With further training in business administration related to the employer's business, you may advance to a managerial job much faster than by job experience alone.

Finding the Job

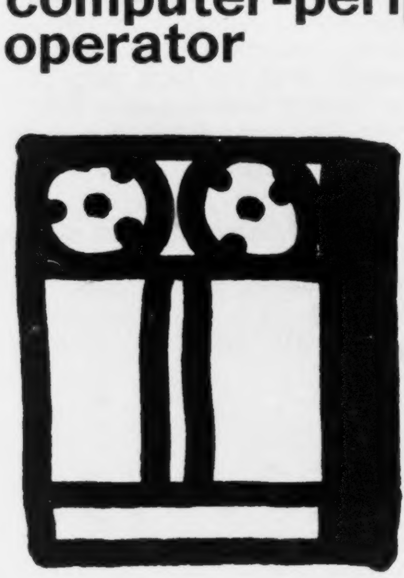
Apply directly at the employment or personnel office of any local restaurant, place of entertainment, or almost any retail store. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

Retail Clerks International Association (AFL-CIO)
Connecticut Avenue and De Sales Street, NW.
Washington, D.C. 20036

CLERICAL
AND SALES
OCCUPATIONS

computer-peripheral-equipment operator



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Usual Duties

The Computer-Peripheral-Equipment Operator runs a machine that has instructions to transfer data from one form to another, to print output from a central computer, and to read information into and out of that computer. He puts input materials, such as tapes, cards, and bank checks, into the machine and sets the necessary guides, keys, and switches according to the instructions. He then wires a control panel and puts it into the machine. After this, he starts the equipment, watches for errors, and removes any incorrect materials. When the run is through, he unloads and labels the input and output materials and puts them back into storage or prepares them for use.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Computer-Peripheral-Equipment Operator, you must complete a few months of on-the-job training. To qualify as a beginning worker for this job, you must have at least a high school education. Courses in business subjects, operation of business machines, and electronic data processing will be very useful to you. Most employers require you to take tests to determine your aptitude for the work

You must be physically able to stand and walk for long periods of time and to work rapidly and accurately with your hands and fingers in order to set up machines and manipulate keys and switches to correct errors or stoppages. You must have good eyesight with normal color vision to wire a control panel when setting up the machine.

Employment Prospects

There will be many thousands of job openings for Computer-Peripheral-Equipment Operators during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the need for more Computer-Peripheral-Equipment Operators to handle the large increase in the use of computer equipment to do clerical work. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at public utilities, banks, transportation and insurance companies, manufacturing firms, data processing service centers, and government agencies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Oppor

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Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at public utilities, banks, transportation and insurance companies, manufacturing firms, data processing service centers, and government agencies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act

Advancement Opportunities

As an experienced Computer-Peripheral-Equipment Operator, you may advance to a job as Console Operator and later to a supervisory job. With further training in advanced computer equipment, you may advance to a job as programer.

Finding the Job

Apply directly at the employment or personnel office of any local public utility, bank, transportation or insurance company, manufacturing firm, data processing service center, or government agency. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

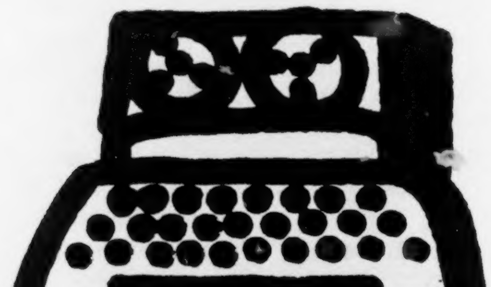
For more information on this kind of work, write to:

Data Processing Management
Association
524 Busse Highway
Park Ridge, Ill. 60068

Association for Computing Machinery
211 East 43rd Street
New York, N.Y. 10017

CLERICAL
AND SALES
OCCUPATIONS

data typist



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Usual Duties

The Data Typist operates a machine that converts information into codes which can be read by electronic data processing equipment. She puts punchcards or reels of tape into the machine, sets switches, then types the specified information which the machine records as holes or magnetic impulses onto cards or tapes. After this, she checks her work and corrects any mistakes.

She may also use a reader attachment to make copies of business correspondence or records.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Data Typist, you must complete 3 months of on-the-job training. To qualify as a beginning worker for this job, you usually must have a high school education. Courses in electric typewriting and any business courses will be very useful to you. Most employers require you to take tests to determine your aptitude for the work.

You must be able to work rapidly and accurately with your hands and fingers when using manual or electric typewriters.

Employment Prospects

There will be many thousands of job openings for Data Typists during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Data Typists due to the increasing use of data processing machines. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at financial companies, educational institutions, any private industry concern that uses electronic data processing machines, and government agencies in large cities.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

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Employment Prospects

There will be many thousands of job openings for Data Typists during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Data Typists due to the increasing use of data processing machines. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at financial companies, educational institutions, any private industry concern that uses electronic data processing machines, and government agencies in large cities.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Data Typist, you may advance to jobs operating more complex machines and later to supervisory jobs. With further training in advanced data processing machines, you may advance to a supervisory job much faster than by job experience alone.

Finding the Job

Apply directly at the employment or personnel office of any local large business establishment or government agency that uses electronic data processing machines. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

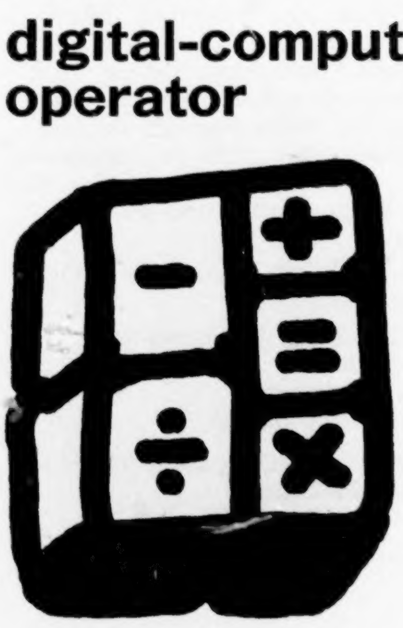
For more information on this kind of work, write to:

Data Processing Management
Association
524 Busse Highway
Park Ridge, Ill. 60068

Association for Computing Machinery
211 East 43rd Street
New York, N.Y. 10017

CLERICAL
AND SALES
OCCUPATIONS

digital-computer operator



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Usual Duties

The Digital-Computer Operator monitors and controls an electronic computer to process data. He first reads the programer's written instructions and determines the procedure to be followed. He then sets control switches, loads the computer with the tape or cards, and starts the computer. During the run, he has dozens of lights to watch and switches to operate. If any of these lights signal an error or if the computer stops running, he finds out what is causing the trouble and corrects the error. He then completes the run and clears the computer.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Digital-Computer Operator, you must complete a few months of on-the-job training. To qualify as a beginning worker for this job, you must have at least a high school education. Courses in data processing machines will be very useful to you. Most employers require you to take tests to determine your aptitude for the work.

You must be physically able to stand and walk for long periods of time and to work rapidly and accurately with your hands and fingers when setting up computer machines and to move keys and switches in correcting errors or stoppages. You must have good eyesight with normal color vision to observe and react to dozens of various colored lights and switches.

Employment Prospects

There will be many thousands of job openings for Digital-Computer Operators during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Digital Computer Operators due to the ever-increasing use of data processing machines to do clerical work. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at insurance, transportation, public utility companies, banks, and in government agencies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

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Employment Prospects

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Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at insurance, transportation, public utility companies, banks, and in government agencies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Digital-Computer Operator, you may advance to jobs operating more complex machines and later to supervisory jobs. With further training in data processing machines and techniques, you may advance to a job as programer.

Finding the Job

Apply directly at the employment or personnel office of any local bank, insurance, transportation or public utility company, or government agency. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

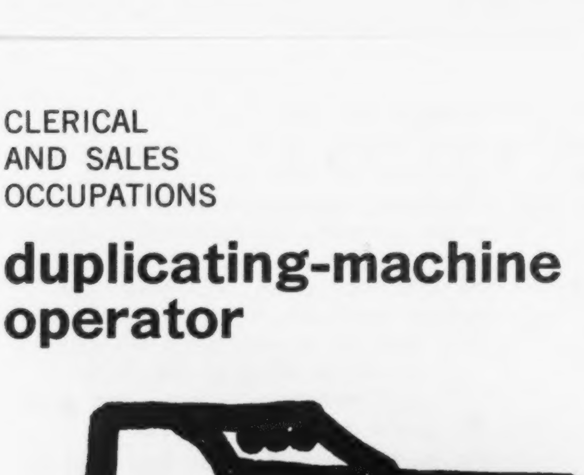
For more information on this kind of work, write to:

Data Processing Management
Association
524 Busse Highway
Park Ridge, Ill. 60068

Association for Computing Machinery
211 East 43rd Street
New York, N.Y. 10017

CLERICAL
AND SALES
OCCUPATIONS

duplicating-machine operator



Usual Duties

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He may also have
diagrams for the ma
materials to be du

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Usual Duties

The Duplicating-Machine Operator makes copies of typewritten and other materials, using one of several kinds of duplicating machines. He runs a master copy of the document to be copied through the machine. He then makes adjustments, starts the machine, and watches carefully to make certain that the copies are clear and easy to read.

On some machines he may feed in the paper and remove the finished copies for a batch.

He may also have to type or draw diagrams for the master copy of materials to be duplicated.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings.

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Qualifications

To become a Duplicating-Machine Operator, you must complete a few weeks of on-the-job training. To qualify as a beginning worker for this job, you usually must have a high school education. Courses in the use of office machines and any business course will be very useful to you.

You must be able to work rapidly and accurately with your hands and fingers when adjusting the machine to accommodate various sized master copies of documents to be reproduced. You must have good eyesight to keep the machine properly adjusted so that it produces legible copies.

Employment Prospects

There will be many thousands of job openings for Duplicating-Machine Operators during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Duplicating-Machine Operators to handle the ever-increasing workload in reproduction of written materials. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at manufacturing companies that handle a large volume of records in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Oppo

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Employment Prospects

There will be many thousands of job openings for Duplicating-Machine Operators during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Duplicating-Machine Operators to handle the ever-increasing workload in reproduction of written materials. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at manufacturing companies that handle a large volume of records in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Duplicating-Machine Operator, you may advance to jobs operating more complex machines or training new workers. With further training in business arithmetic and in the use of other office machines, you may advance to jobs operating more complex machines much faster than by experience alone.

Finding the Job

Apply directly at the employment or personnel office of any local manufacturing company, bank, insurance company, wholesale or retail firm, or government agency. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

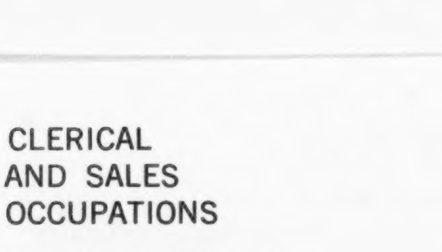
For more information on this kind of work, write to:

Bureau of Educational Assistance Programs
Division of Vocational and Technical Education
U.S. Office of Education
Washington, D.C. 20202

The National Association and Council of Business Schools
1518 K Street, NW.
Washington, D.C. 20005

CLERICAL
AND SALES
OCCUPATIONS

hotel clerk



Usual Duties

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Usual Duties

The Hotel Clerk performs a variety of duties to serve hotel guests. He makes and confirms hotel reservations. When guests arrive, he greets and registers them, gives them their room keys, and gives instructions to the bellman.

He keeps records of the guests' accounts and of the rooms which are occupied. He bills guests and collects payment from them. When they leave, he checks them out.

He may use equipment such as a teletype, a telephone, and a switchboard to send and receive messages. He also sorts and marks the date on incoming mail.

In addition, he serves guests by answering questions about interesting places to visit and about the services available from the hotel. Sometimes he does typing and sells items such as tobacco, candy, and newspapers.

Characteristics of Job

Work is steady throughout the year, with a 5- or 6-day, 40- to 48-hour workweek. Work schedule includes evenings, nights, weekends, and holidays. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Hotel Clerk, you must complete a few weeks of on-the-job training. To qualify as a beginning worker for this job, you usually must have a high school education. Courses in typing and bookkeeping will be very useful to you.

You must be physically able to stand for long periods of time and to work rapidly and accurately with your hands and fingers when using a teletype machine and operating a switchboard. You must have good eyesight to keep records of guests' accounts, sort incoming mail, and operate a switchboard. You must have a good sense of hearing to communicate with hotel guests and the public in general.

You must be friendly, patient, tactful, neat, and have a pleasant speaking voice to get along well with the public.

Employment Prospects

There will be many thousands of job openings for Hotel Clerks during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the demand for more Hotel Clerks due to the rapid increase in the number of hotels and motels. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at hotels or motels in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Hotel Clerk, may advance to training of roo clerks, key clerks, reservation c and floor clerks, but only in la chain hotels, because these jo exist only in such hotels. With f training in college business a hotel administration courses, y advance to management jobs.

51.

Employment Prospects

There will be many thousands of job openings for Hotel Clerks during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the demand for more Hotel Clerks due to the rapid increase in the number of hotels and motels. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at hotels or motels in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Hotel Clerk, you may advance to training of room clerks, key clerks, reservation clerks, and floor clerks, but only in large or chain hotels, because these jobs exist only in such hotels. With further training in college business and hotel administration courses, you may advance to management jobs.

Finding the Job

Apply directly at the employment or personnel office of any local hotel or motel. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers.

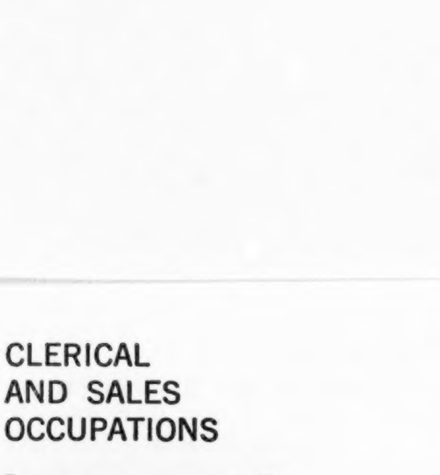
For more information on this kind of work, write to:

American Hotel and Motel Association
221 West 57th Street
New York, N.Y. 10019

The Council on Hotel, Restaurant, and Institutional Education
Statler Hall, Cornell University
Ithica, N.Y. 14850

CLERICAL
AND SALES
OCCUPATIONS

key-punch operator



Usual Duties

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through machine stations.
he depresses keys to trans
data from the source mate
perforations on the cards.
this process he observes th
to make sure it is working
In case of any mechanica
he notifies his supervisor.
become jammed, he remove
the machine by using a pry

Usual Duties

The Key-Punch Operator operates an alphabetic and numeric key-punch machine to transcribe data from source material onto punchcards and to produce prepunched data. He first loads the machine with decks of punchcards. Then, he moves switches and depresses keys to select automatic or manual duplication and spacing, to select alphabetic or numeric punching, and to transfer cards through machine stations. After this, he depresses keys to transcribe new data from the source material into perforations on the cards. During this process he observes the machine to make sure it is working properly. In case of any mechanical trouble, he notifies his supervisor. If cards become jammed, he removes them from the machine by using a prying knife.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Key-Punch Operator, you must complete a few weeks of on-the-job training. To qualify as a beginning worker for this job, you usually must have a high school education. Courses in typing and key-punch operation will be very useful to you. Most employers require you to take tests to determine your aptitude for the work.

You must be able to work rapidly and accurately with your hands and fingers when operating the keyboard of the key-punch machine. You must have good eyesight to be able to read very small printed words and numbers.

Employment Prospects

There will be many thousands of job openings for Key-Punch Operators during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Key-Punch Operators to operate the ever-increasing number of machines that will be required as a result of business growth. As a result, your chances of getting a job are very good.

Jobs are found in many communities and in many establishments. Good chances for finding employment will be at manufacturing firms that use data processing equipment and in government agencies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opp

As an experience
you may advance
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clerical jobs. Wit
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Employment Prospects

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This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Key-Punch Operator, you may advance to jobs operating more complex machines or higher rated clerical jobs. With further training in business courses related to the employer's business, you may advance to a supervisory job, such as a section or department head.

Finding the Job

Apply directly at the employment or personnel office of any local utility, finance, wholesale or retail trade establishment, manufacturing firm that uses data processing equipment, or government agency. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

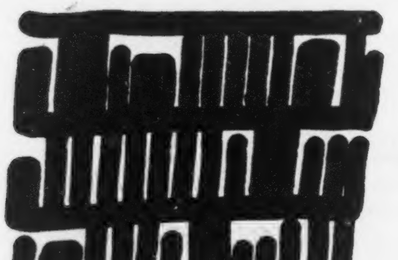
For more information on this kind of work, write to:

United Business Schools Association
1518 K Street, NW.
Washington, D.C. 20005

Data Processing Management
Association
524 Busse Highway
Park Ridge, Ill. 60068

CLERICAL
AND SALES
OCCUPATIONS

library assistant



Usual Duties

The Library Assistant helps
records, caring for books,
borrowers at a public, sc
special library. He keeps
books lent out, their borro
the dates they must be re
library. He makes up lists
which are overdue and se
notices to the persons wh
When overdue books are
computes and collects the
by the library.

He sorts books, magazines
materials and returns them
storage place in the files o
shelves. He files cards in
catalog.

He also issues library card
borrowers and helps people
cannot find the books they

At times he repairs damag
helps in library inventories
personally or over the pho
questions about nonprofes
library matters.

Usual Duties

The Library Assistant helps in keeping records, caring for books, and serving borrowers at a public, school, or special library. He keeps records of books lent out, their borrowers, and the dates they must be returned to the library. He makes up lists of books which are overdue and sends out notices to the persons who have them. When overdue books are returned, he computes and collects the fines set by the library.

He sorts books, magazines, and other materials and returns them to their storage place in the files or on the shelves. He files cards in the card catalog.

He also issues library cards to new borrowers and helps people who cannot find the books they want.

At times he repairs damaged books, helps in library inventories, and, personally or over the phone, answers questions about nonprofessional library matters.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 35- to 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Library Assistant, you must complete from 6 to 12 months of on-the-job training. To qualify as a beginning worker for this job, you usually must have a high school education. Courses in typing, bookkeeping, and basic mathematical and clerical procedure will be very useful to you.

You must be physically able to stand for long periods of time and to work rapidly and accurately with your hands and fingers when sorting books and magazines and placing them on shelves properly. You must have good eyesight to keep records of books loaned and returned and when assisting in library inventories. You must have a good sense of hearing to communicate with library patrons because conversations are usually carried on in a quieter than normal voice.

You must be friendly, patient, tactful, and neat in appearance to get along well with the public.

Employment Prospects

There will be thousands of job openings for Library Assistants during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Library Assistants to help professional librarians in maintaining the growing number of libraries. As a result, your chances of getting a job are good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at school and public libraries in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportu

Advancement for you
Library Assistant is
form of higher wages.
in library science, ho
become a professional

Employment Prospects

There will be thousands of job openings for Library Assistants during he next 10 years. These job openings will come about because of the need o replace workers who will retire or leave their jobs for other reasons and because of the need for more Library Assistants to help professional librarians in maintaining the growing number of libraries. As a result, your chances of getting a job are good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at school and public libraries in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

Advancement for you as an experienced Library Assistant is usually in the form of higher wages. With a degree in library science, however, you can become a professional librarian.

Finding the Job

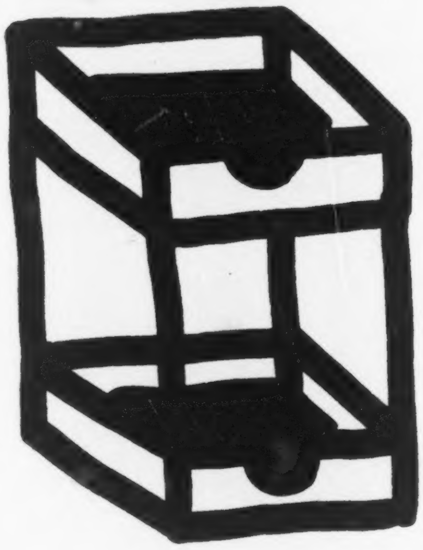
Apply directly at the employment or personnel office of any local public school, library, college, research company, or government agency. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

American Library Association
50 East Huron Street
Chicago, Ill. 60603

CLERICAL
AND SALES
OCCUPATIONS

office boy; office girl; messenger



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Usual Duties

The Office Boy, Office Girl, or Messenger collects, sorts, seals, stamps, and mails or delivers messages or other papers to people within his own or in other business offices. He may be required to drive a car or motorcycle to deliver materials to other business concerns. He may also have to get receipts, keep records, answer telephones, do filing, and operate simple office machines, such as postage meters and envelope sealing machines.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule in some establishments includes evenings, nights, holidays, and weekends. Work is usually performed indoors in pleasant surroundings. Work is performed indoors and outdoors only on jobs that require the worker to deliver messages to establishments that are located in other buildings throughout the city.

Employer usually furnishes work uniforms if they are required.

Qualifications

To become an Office Boy, Office Girl, or Messenger, you must receive a few days to a week of on-the-job training to become familiar with work schedules and locations of places with which you will be involved in your work. To qualify for these jobs, you usually must have a high school education, because it is almost always required for advancement. Courses in the operation of office machines and any clerical subjects related to the business in which you are employed will be very useful to you. You must be at least 18 years of age if you are required to drive a car or motorcycle in performance of your duties. You must also have a valid driver's license and be insurable.

You must be physically able to stand and walk for most of the working day. If driving a motor vehicle, you must be able to perform safely in normal or heavy traffic conditions. You must be able to work rapidly and accurately with your hands and fingers when sorting, sealing, and stamping mail or messages. You must have good eyesight with normal color vision to drive an automobile or motorcycle, if required. You must have a good sense of hearing to clearly understand and accurately respond to oral messages or orders given by coworkers.

You must be friendly, tactful, neat, and alert to get along well with the public.

Employment Prospects

There will be many thousands of job openings for Office Boys, Office Girls, or Messengers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the demand for more Office Boys, Office Girls, or Messengers to meet the needs of increasing business activities. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at publishing firms, banks, telegraph companies, and retail stores in large towns or cties.

As a student you can usually obtain part-time work at publishing firms and telegraph companies in almost any community.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Office Bo
Girl, or Messenger, you may
jobs such as file clerk, stock
general clerk, and office mac
operator. With further trainin
clerical and business subjec
college or business school,
advance to supervisory cler
management jobs.

Employment Prospects

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This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Office Boy, Office Girl, or Messenger, you may advance to jobs such as file clerk, stock clerk, general clerk, and office machine operator. With further training in clerical and business subjects in college or business school, you may advance to supervisory clerical or management jobs.

Finding the Job

Apply directly at the employment or personnel office of any local bank, printing and publishing firm, telegraph company, radio and television broadcasting station, retail store, or telephone company. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers.

CLERICAL
AND SALES
OCCUPATIONS

receptionist

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clerical work

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Usual Duties

The Receptionist receives visitors, clients, and customers; makes a record of their names and other information; gives directions; and answers routine questions. She may also make appointments, answer the telephone, operate a switchboard, collect and give out mail and messages, type, and do other clerical work.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule includes evenings nights, and weekends only in such businesses as beauty shops, physicians' offices, or hospitals. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Receptionist, you must complete about 3 months of on-the-job training. To qualify as a beginning worker for this job, you must have at least a high school education. Courses in typing, bookkeeping, PBX switchboard operation, and English grammar will be very useful to you.

You must be able to work rapidly and accurately with your hands and fingers when typing and operating the switchboard.

You must be friendly, patient, attractive, tactful, neat, and have a pleasant speaking voice to deal successfully with the public.

Employment Prospects

There will be about 250,000 job openings for Receptionists during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Receptionists due to increasing business activities. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at offices of physicans, attorneys, and other professional people, large business offices, hospitals, beauty shops, and insurance and real estate companies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Receptioni
may advance to a better payin
secretary. With further training
business and administrative co
you may advance to a secreta
more rapidly than by job ex
alone and may also advance t
administrative assistant.

Employment Prospects

There will be about 250,000 job openings for Receptionists during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Receptionists due to increasing business activities. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at offices of physicans, attorneys, and other professional people, large business offices, hospitals, beauty shops, and insurance and real estate companies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Receptionist, you may advance to a better paying job as secretary. With further training in business and administrative courses, you may advance to a secretarial job more rapidly than by job experience alone and may also advance to an administrative assistant.

Finding the Job

Apply directly at the employment or personnel office of any local physician, attorney, hospital, beauty shop, insurance, real estate, or any large business office, large restaurant, or place of entertainment. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers.

For more information on this kind of work, write to:

United Business Schools Association
1518 K Street, NW.
Washington, D.C. 20005

CLERICAL
AND SALES
OCCUPATIONS

secretary

Usual Duties

The Secretary sche
gives information
dictation, and othe
officials of clerical
administrative and

She reads and rou
and attaches the a
correspondence to
employer.

She also takes dict
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transcribes her not
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She composes and
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In addition, she ans
and gives informatio
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official and places
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employer.

She greets visitors,
their business, and
to the employer or a

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Usual Duties

The Secretary schedules appointments, gives information to callers, takes dictation, and otherwise relieves officials of clerical work and minor administrative and business details.

She reads and routes incoming mail and attaches the appropriate file to correspondence to be answered by the employer.

She also takes dictation in shorthand or on a Stenotype machine and transcribes her notes on a typewriter, or transcribes from voice recordings.

She composes and types routine correspondence and files correspondence and other records.

In addition, she answers the telephone and gives information to callers or routes the call to the appropriate official and places outgoing calls. She also schedules appointments for the employer.

She greets visitors, asks the nature of their business, and conducts them to the employer or appropriate person.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Secretary, you must complete a few months of on-the-job training. To qualify as a beginning worker for this job, you usually must have at least a high school education, including courses in shorthand and typing. Courses in English grammar, the operation of business machines, and any other business subject will be very useful to you.

You must be able to work rapidly and accurately with your hands and fingers when typing, taking dictation, and operating office machines. You must have a good sense of hearing to take dictation accurately.

You must be friendly, tactful, alert, neat, and courteous to get along well with customers and coworkers.

Employment Prospects

There will be many thousands of job openings for Secretaries during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Secretaries to handle the rapidly increasing volume of paperwork and minor administrative duties resulting from business expansion in most industries. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at manufacturing firms, insurance companies, and government agencies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opport

As an experienced
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you may advance to
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office supervisor, or

Employment Prospects

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Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at manufacturing firms, insurance companies, and government agencies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Secretary, with specialized knowledge of your employer's business and office procedures, you may advance to a more responsible job, such as administrative assistant, office supervisor, or executive secretary.

Finding the Job

Apply directly at the employment or personnel office of any local manufacturing firm, insurance company, bank, hospital, or government agency. In general, Secretaries are employed by public and private organizations of practically every size and type. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

United Business Schools Association
1518 K Street, NW.
Washington, D.C. 20005

Bureau of Educational Assistance Programs
Division of Vocational and Technical Education
U.S. Office of Education
Washington, D.C. 20202

CLERICAL
AND SALES
OCCUPATIONS

stenographer

Usual Duties

The Stenographer take
shorthand of correspor
and other matter, and
dictated material, usi

She may also perform
routine clerical tasks.
are: copying data and c
and reports; recording
merchandise or servic
issuing, and sending ou
invoices, statements, a
matter; and operating
machines as adding, c
duplicating machines.

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Usual Duties

The Stenographer takes dictation in shorthand of correspondence, reports, and other matter, and transcribes the dictated material, using a typewriter.

She may also perform a variety of routine clerical tasks. Some of them are: copying data and compiling records and reports; recording orders for merchandise or services; preparing, issuing, and sending out receipts, bills, invoices, statements, and similar matter; and operating such office machines as adding, calculating, and duplicating machines.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Stenographer, you must complete a few months of on-the-job training. To qualify as a beginning worker for this job, you must have at least a high school education, including courses in shorthand and typing. Courses in English grammar, in the operation of business machines, and any other business subject will be very useful to you. The Federal Government and most private employers require you to take tests to show that you can take dictation at a rate of at least 80 words a minute and can type at least 40 words a minute.

You must be able to work rapidly and accurately with your hands and fingers when taking dictation, typing, and operating office machines. You must have a good sense of hearing to take dictation accurately.

You must be friendly, alert, neat, and courteous to get along well with coworkers.

Employment Prospects

There will be many thousands of job openings for Stenographers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Stenographers to handle the rapidly increasing volume of paperwork resulting from business expansion in most industries. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at manufacturing firms, insurance companies, and government agencies in large cities.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Stenographe
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Employment Prospects

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Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Stenographer, you may advance to a job as a Secretary. With further training in office procedures and by acquiring specialized knowledge of your employer's business, you may advance to a more responsible job, such as administrative assistant, office supervisor, or executive secretary.

Finding the Job

Apply directly at the employment or personnel office of any local manufacturing firm, insurance company, hospital, or government agency. In general, Stenographers are employed by public and private organizations of practically every size and type. Register at your local State Employment Service office. Ask your high school couselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

United Business Schools Association
1518 K Street, NW.
Washington, D.C. 20005

Bureau of Educational Assistance
Programs
Division of Vocational and Technical
Education
U.S. Office of Education
Washington, D.C. 20202

CLERICAL
AND SALES
OCCUPATIONS

tabulating-machine operator; sorting-machine operator

Usual Duties

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Usual Duties

The Tabulating-Machine Operator runs a machine that sorts and counts statistical and accounting information. He wires and installs the plugboard or control panel for the machine, inserts the batch of punched cards, and starts the machine. While the machine counts the items punched on the cards, makes calculations, and prints the results on accounting records and other forms, he watches for any problems and removes jammed cards. When the batch is completed, he routes the cards to the next work station.

The Sorting-Machine Operator runs a similar machine which separates the cards according to the location of holes and arranges them in a set order or in groups. He pushes the correct buttons on the control panel to set up the sorting process and then starts the machine. He checks the sorting by looking through the holes in the cards to make certain they are lined up correctly.

Characteristics of Job

Work is steady throughout year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Tabulating-Machine Operator or Sorting-Machine Operator, you must complete 3 months of on-the-job training. To qualify for either of these jobs, you must have a business school or high school education. Courses in typing and any other business subjects will be very useful to you.

You must be able to work rapidly and accurately with your hands and fingers when setting up and adjusting your machine. You must have good eyesight with normal color vision to perform simple wiring of plugboards when setting up the machine or to inspect the wiring if the plugboards were prewired by another operator.

Employment Prospects

There will be many thousands of job openings for Tabulating-Machine Operators and Sorting-Machine Operators during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the demand for more Tabulating-Machine Operators and Sorting-Machine Operators to meet the needs of the increasing business activities. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at manufacturing and insurance companies, banks, wholesale and retail firms, and in government agencies in large cities.

This kind of work is available both to men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Op

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nployment Prospects

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getting a job are very good.

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nis kind of work is available both to
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Advancement Opportunities

As an experienced Tabulating-Machine Operator or Sorting-Machine Operator, you may advance to jobs operating more complex machines, to related clerical jobs, or to supervisory positions or section or department heads. With further training in specialized equipment courses given by equipment manufacturers (at company expense), you may advance to digital-computer-operator and later to a job as programer.

Finding the Job

Apply directly at the employment or personnel office of any local manufacturing firm, bank, insurance company, wholesale or retail establishment that handles a large volume of bookkeeping records or paper work, or any government agency. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

Data Processing Management
Association
524 Busse Highway
Park Ridge, Illinois 60068

Association for Computing Machinery
211 East 43rd Street
New York, N.Y. 10017

CLERICAL
AND SALES
OCCUPATIONS

tape librarian

Usual Duties

The Tape Librarian
and tapes used i
assigns them a co
predetermined syst
index cards for file
stores, checks out
returned cards or t
supervisor if they a
Sometimes he runs
to repunch damage

Usual Duties

The Tape Librarian classifies the cards and tapes used in computers and assigns them a code by following a predetermined system. He prepares index cards for file reference. He also stores, checks out, and receives returned cards or tapes and notifies the supervisor if they are worn or damaged. Sometimes he runs a keypunch machine to repunch damaged cards.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings.

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Qualifications

To become a Tape Librarian, you must complete about 6 months of on-the-job training. To qualify as a beginning worker for this job, you usually must have a high school education. Courses in typing and any other business subjects will be very useful to you.

You must be physically able to stand for long periods of time and occasionally lift and carry reels of tape and drawers of cards weighing up to 20 pounds. You must be able to work accurately with your hands and fingers when operating a keypunch machine to repunch damaged cards. You must have good eyesight to visually inspect cards and tapes that are used in computers to determine if they are worn or damaged.

Employment Prospects

There will be thousands of job openings for Tape Librarians during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Tape Librarians due to the ever-increasing number of computers. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at large companies and government agencies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportu

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Employment Prospects

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This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Tape Librarian, you may advance to a supervisory job over other Tape Librarians, but only in very large companies that use data processing equipment and systems. With further training in the operation of data processing equipment, you may advance to a job as a programer.

Finding the Job

Apply directly at the employment or personnel office of any local business with large data processing systems and employers and branch offices of data processing equipment manufacturers. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

Data Processing Management
Association
524 Busse Highway
Park Ridge, Illinois 60068

Association for Computing Machinery
211 East 43rd Street
New York, N.Y. 10017

CLERICAL
AND SALES
OCCUPATIONS

telephone operator

ne operator

Usual Duties

The Telephone Operator operates either a cord or cordless switchboard to relay incoming, outgoing, and interoffice calls. She pushes switch keys to make connections and to relay calls on cordless switchboard. On cord type equipment she plugs cords into jacks that are mounted on the switchboard. She may also supply information to callers, record messages, and keep records of calls and toll charges.

Sometimes, too, she performs clerical duties, such as typing, proofreading, and sorting mail.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 35- to 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends.

Qualifications

To become a Telephone Operator, you must complete 1 to 3 weeks of on-the-job training. To qualify as a beginning worker for this job, you must have a high school education. Courses in English, typing, and business arithmetic will be very useful to you. Most employers require you to take physical examinations and general aptitude tests.

You must be able to work rapidly and accurately with your hands and fingers when inserting and removing plugs attached to cords and when manipulating keys and dials. You must have good eyesight with normal color vision to distinguish colored lights on the switchboard. You must have a good sense of hearing to receive requests or instructions from telephone callers.

You must be friendly, patient, tactful, courteous, and have a pleasant speaking voice to deal successfully with callers.

Employment Prospects

There will be about 280,000 job openings for Telephone Operators during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the demand for more Telephone Operators to handle the increasing volume of telephone calls. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at telephone companies in large cities.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

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Employment Prospects

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Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at telephone companies in large cities.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Telephone Operator, you may advance to such jobs as a supervisor, instructor, or chief operator. You may also advance to higher paying clerical jobs, as clerk-typist, sales clerk, or order taker in a telephone company.

Finding the Job

Apply directly at the employment or personnel office of any local telephone company, telephone answering service establishment, large retail store, hotel, hospital, manufacturing plant, or government agency. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

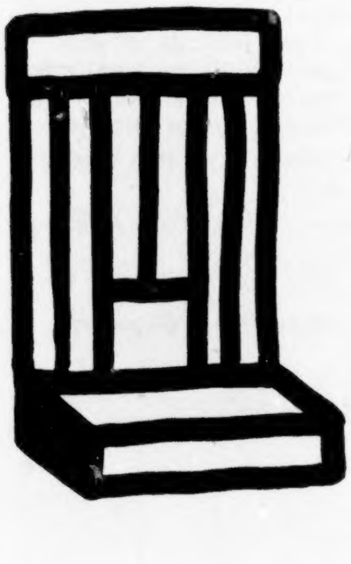
For more information on this kind of work, write to:

Communications Workers of America
1925 K Street, NW.
Washington, D.C. 20006

Alliance of Independent Telephone
Unions
1422 Chestnut Street, Room 302
Philadelphia, Pa. 19102

CLERICAL
AND SALES
OCCUPATIONS

teller



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Usual Duties

The Teller cashes checks and handles deposits and withdrawals from checking and savings accounts. He makes entries in the customers' account books, gives receipts for money received, and keeps other records of banking transactions. He also takes real estate, commercial loan, installment, and other payments. He may operate office machines, sell travelers' checks and savings bonds, photograph records, figure up service charges, and file checks.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 37½- to 40-hour workweek. Work is performed indoors in pleasant surroundings.

Employer may require you to be bonded.

Qualifications

To become a Teller, you must complete about 6 months of on-the-job training. To qualify as a beginning worker for this job, you must have a high school education. Courses in business arithmetic and clerical subjects will be very useful to you.

You must be physically able to stand and move around within a small area during most of the working day. You must also be able to work rapidly and accurately with your hands and fingers when making change, cashing checks, making entries in the customers' accounts, and keeping records of transactions as required. You must have good eyesight to accurately record information when selling savings bonds and travelers' checks and during any transaction where counting money is involved.

You must be friendly, patient, tactful, neat, and courteous to deal successfully with customers.

Employment Prospects

There will be many thousands of job openings for Tellers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Tellers due to the increasing volume of banking and the growth of branch banks. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at banks and savings and loan companies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Teller,
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Employment Prospects

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Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at banks and savings and loan companies in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Teller, you may advance to a job as a specialized Teller or Head Teller, who supervises other Tellers. With further training in specialized courses offered by the American Institute of Banking or related college courses you may advance to Head Teller faster than with job experience alone, and later advance to an executive job.

Finding the Job

Apply directly at the employment or personnel office of any local bank, savings and loan company, brokerage firm, or personal loan company. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers.

For more information on this kind of work, write to:

American Bankers Association
Personnel Administration and Management Development Committee
90 Park Avenue
New York, N.Y. 10016

CLERICAL
AND SALES
OCCUPATIONS

typist

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Usual Duties

The Typist types letters, envelopes, stencils, business forms, and other records from dictated recordings, rough drafts, or other sources.

She may have to check her drafts and totals for mistakes.

She may do other clerical work, such as running duplicating and other simple office machines, filing and answering the phone.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Typist, you must complete a few weeks of on-the-job training. To qualify as a beginning worker for this job, you usually must have a high school education. Courses in use of the electric typewriter, office practices, bookkeeping, shorthand, and English will be very useful to you. Most employers require you to take tests to determine your aptitude for English and typing speed and accuracy.

You must be able to work rapidly and accurately with your hands and fingers when operating a typewriter. You must have good eyesight to read rough drafts and to proofread completed typed material. You must have a good sense of hearing to transcribe dictation from a dictaphone recording. You must be neat, dependable, and able to get along well with your coworkers.

Employment Prospects

There will be about 600,000 job openings for Typists during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the demand for more Typists due to an increasing volume in business correspondence. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at business centers in large cities.

As a student you can usually obtain part-time work or summer work at a business establishment in almost any community.

Although most typists today are women, this kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opport

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Employment Prospects

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Although most typists today are women, this kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Typist, you may advance to a more specialized typing job and to a supervisory job over other Typists. With further training in business courses and any related clerical subjects you may advance to a stenographic or secretarial job.

Finding the Job

Apply directly at the employment or personnel office of any local professional office, educational institution, finance, insurance, and real estate company, or any government agency. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

United Business Schools Association
1518 K Street, NW.
Washington, D.C. 20005

CLERICAL
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grocery checker

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Usual Duties

The Grocery Checker uses a cash register or adding machine to record and total the prices of customers' purchases in a self-service grocery store. He reads the markings on the items, looks at a price list or recalls the prices, then pushes the cash register or adding machine keys to record the prices and the symbols that indicate the kind of items bought, as grocery, meat, or produce. He gives the customer his bill, receives payment, and makes change. He may unload shopping carts, weigh items and figure up their prices, bag groceries, collect coupons, or give out trading stamps. At the end fo his shift he may balance the cash on hand with the amount shown on his register.

He may also stock shelves, mark items, or take inventory.

Characteristics of Job

Work is steady throughout the year, usually with a 5- or 6-day, 40- to 48-hour workweek, depending on local union contracts and needs of the store. Work schedule may include evenings, nights, holidays, and weekends. Work is performed indoors in pleasant surroundings.

Job sometimes requires you to be bonded.

Employer usually furnishes work uniforms if they are required.

Qualifications

To become a Grocery Checker, you must complete a few weeks of on-the-job training. To qualify as a beginning worker for this job, you usually must have a high school education. Courses in arithmetic and adding machine and cash register operation will be very useful to you. You must be at least 18 years of age.

You must be physically able to stand for long periods of time and lift the sacked groceries from the counter and place them into grocery carts. You must be able to work rapidly and accurately with your hands and fingers when using a cash register or adding machine and when packing groceries, receiving payment, and making change. You must have good eyesight with normal color vision to operate a cash register when recording prices and the colored symbol keys that classify each item as grocery, meat, produce, or other category.

You must be friendly, patient, tactful, neat, and mentally alert to get along well with customers.

Employment Prospects

There will be many thousands of job openings for Grocery Checkers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the need for more Grocery Checkers due to the growth of supermarkets and other grocery stores. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at supermarkets in suburban areas.

As a student you can usually obtain part-time work at supermarkets in almost any area during weekends, holidays, and rush seasons.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Oppor

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Employment Prospects

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This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Grocery Checker, you may advance to such jobs as chief cashier, department head, and assistant manager. With further training in business administration and food retailing courses above high school level, you may advance to supervisory and administrative jobs more rapidly. Some foodstore chains provide this training to interested and capable employees.

Finding the Job

Apply directly at the employment or personnel office of any local independent supermarket, chain store supermarket, or smaller grocery store. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers.

CLERICAL
AND SALES
OCCUPATIONS

sales clerk

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Usual Duties

The Sales Clerk receives payment for merchandise, such as bakery goods, magazines, groceries, books, and tobacco selected by customers and makes change. He may wrap or bag merchandise and keep shelves stocked with merchandise. He may also keep records of sales, prepare inventory of stock, or order merchandise.

Characteristics of Job

Work is steady throughout the year, usually with a 5- or 6-day, 35- to 48-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Sales Clerk, you must complete a brief period of on-the-job training to acquaint you with your work surroundings and duties. When applying for this job, you will be given preference if you have a high school education, but it is not required. Courses in arithmetic, English, and home economics will be very useful to you.

You must be physically able to stand and walk throughout the workday.

You must be friendly, patient, tactful, neat, and courteous in order to deal successfully with customers.

Employment Prospects

There will be many thousands of job openings for Sales Clerks during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Sales Clerks due to the increasing volume of retail trade. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at retail stores in large cities.

As a student you can usually obtain part-time work or summer work at retail stores in almost any community.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunit

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Employment Prospects

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This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Sales Clerk, you may advance to a job as section supervisor. With further training in salesmanship and merchandising, you may advance to a job as salesperson or salesman.

Finding the Job

Apply directly at the employment or personnel office of any local retail store. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers.

SERVICE
OCCUPATIONS

airplane stewardess

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Usual Duties

The Airplane Stewardess performs a variety of personal services for the safety and comfort of airline passengers.

Before each flight, she sees that the passenger cabin is in order, that supplies and emergency passenger gear are aboard, and that necessary food and beverages are in the galley. As the passengers come aboard, she greets them, checks their tickets, and assists them with their coats and small luggage. On some flights, she may sell tickets.

During the flight, she makes certain that seat belts are fastened and gives safety instructions when required. She answers questions about the flight and weather, passes out reading matter and pillows, helps care for small children and babies, and keeps the cabin neat. On some flights, she heats and serves meals that have been cooked previously, and may sell and serve cocktails.

After the flight, she completes flight reports.

On international flights, she also gives customs information, instructs passengers in the use of emergency equipment, and repeats instructions in an appropriate foreign language.

Characteristics of Job

Work is steady throughout the year, but work schedule often includes evenings, holidays, and weekends. Workers are usually limted to 85 hours of flight time in each month. Overtime may be required. Work is performed indoors, usually in pleasant surroundings. At times, however, noise and vibration may be present during a flight.

Some employers require worker to furnish her own uniforms.

Qualifications

To become an Airplane Stewardess, you must complete about 6 months of classroom and on-the-job training. To qualify for a training program, you must have at least a high school education. You will be given preference if you have had some college training.

Courses in English and other modern languages, public speaking, geography, hygienics, and first-aid practices will be very useful to you. You usually must be between 20 and 27 years of age, unmarried, and able to meet certain height and weight requirements.

You must be physically able to be on your feet (either standing or walking) for long periods of time, to climb up and down movable stairs when boarding and leaving an airplane, and to balance yourself when carrying and serving food and beverages during a flight.

You must be friendly, attractive, tactful, resourceful, and have a pleasant speaking voice to get alone well with the public.

Employment Prospects

There will be many thousands of job openings for Airplane Stewardesses during the next 10 years. These job openings will come about because of the need to replace workers who will marry or leave their jobs for other reasons and because of the need for more Airplane Stewardesses to provide services to the expected large increase in passenger traffic. As a result, your chances of getting a job are very good.

Good chances for finding employment will be at a scheduled airline in a large city.

This kind of work is available to both men and women. When a man is performing the work, he is called an Airplane Steward. Also, some of the personal qualifications are different for men.

Advancement Opportunities

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Advancement Opportunities

As an experienced Airplane Stewardess, you may advance to jobs as first stewardess or purser, supervising stewardess, stewardess instructor, or recruiting representative.

Finding the Job

Apply directly at the employment or personnel office of any local airline company. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers.

Information about job openings in a particular airline and the qualifications required may be obtained by writing to the personnel manager of the company. Addresses of individual companies are available from:

Air Transport Association of America
1000 Connecticut Avenue, NW.
Washington, D.C. 20036

SERVICE
OCCUPATIONS

barber;
barber apprentice

prentice

Usual Duties

The Barber provides many kinds of barbering services to customers. He cuts, trims, and tapers hair, using clippers, combs, and scissors. He also shaves a customer's beard and shapes his hair outline with a razor. At other times he dyes, shampoos, singes, or styles a customer's hair. On still other occasions he massages a customer's face, neck, or scalp. He also collects payments for services and makes change. He may sell lotions, tonics, and other cosmetic supplies.

The Barber Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Barber within a given time.

Characteristics of Job

Work is steady throughout the year. The workweek varies from shop to shop and usually is more than 40 hours. Work schedule may include evenings and Saturdays. Work is performed indoors in pleasant surroundings.

Some employers require you to furnish your own work uniform. Employer usually requires workers to have, or to acquire, their own instruments.

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Qualifications

In almost all States you must have a Barber's license. To obtain this license, you must complete from 6 to 9 months of classroom training in a State-approved Barbers' school. After graduating from such a school, you then must pass an examination for an apprentice license. After working 1 or 2 years as an apprentice, you must then pass a written test and show that you can do the work to obtain your license as a registered Barber. In addition, you usually must have at least an eighth grade education, be at least 16 years of age, and meet certain health requirements.

You must be physically able to be on your feet (either standing or walking) almost all the workday and to work rapidly and accurately with your hands and fingers when using barbering instruments.

You must be friendly, patient, neat, and tactful in order to deal successfully with your customers.

Employment Prospects

There will be about 120,000 job openings for Barbers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Barbers to provide barbering services to more people. As a result, your chances of getting an apprenticeship are very good.

Jobs are found in nearly all communities. Good chances for finding employment will be in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Barber, you ma advance to a manager of a large s or to a teacher at a barber school.

You may also go into business for yourself by opening your own barbershop.

As an apprentice, you will advanc a journeyman Barber upon comple of 2 or 3 years of classroom and on-the-job training and after obta your license as a registered Barbe

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nere will be about 120,000 job penings for Barbers during the next) years. These job openings will ome about because of the need to place workers who will retire or leave neir jobs for other reasons and ecause of the need for more Barbers provide barbering services to more eople. As a result, your chances of etting an apprenticeship are very ood.

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reapprenticeship training for this ind of work may be available through our local State Employment Service ffice under the Manpower Development nd Training Act.

Advancement Opportunities

As an experienced Barber, you may advance to a manager of a large shop or to a teacher at a barber school.

You may also go into business for yourself by opening your own barbershop.

As an apprentice, you will advance to a journeyman Barber upon completion of 2 or 3 years of classroom and on-the-job training and after obtaining your license as a registered Barber.

Finding the Job

Apply directly at any barbershop. Register at your local State Employment Service office. Ask your high school counselor or barber school instructor for information. Contact local union officials for information. Read the ads in your daily newspapers.

For more information on apprentice jobs, see **page 20**.

For more information on this kind of work, write to:

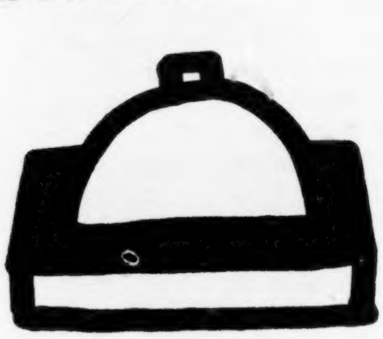
National Association of Barber
Schools, Inc.
750 Third Avenue
Huntington, W. Va. 25701

Associated Master Barbers and
Beauticians of America
537 South Dearborn Street
Chicago, Ill. 60605

Journeymen Barbers, Hairdressers,
Cosmetologists, and Proprietors'
International Union of America
1141 North Delaware Street
Indianapolis, Ind. 46207

SERVICE
OCCUPATIONS

bellman



Usual Duties

The Bellman performs many kinds of services for hotel guests. He escorts incoming guests to their rooms, assists them with their luggage, and gives them information on available services and facilities of the hotel, local points of interest, and local entertainment.

He also inspects the rooms to make sure that they are in order and well supplied. Then he explains certain things, such as operation of radio, television, and nightlock, and how to place telephone calls.

On other occasions he pages guests in the lobby, dining room, and other parts of the hotel, delivers messages, and runs errands.

Characteristics of Job

Except in hotels that open for business only during certain seasons, work is steady through the year. The workweek varies from 35 to 48 hours. Work schedule may include evenings, nights, holidays, and weekends. Work is performed indoors in pleasant surroundings.

Employer usually furnishes work uniforms.

Qualifications

To become a Bellman, you must complete a few weeks of on-the-job training. Many employers do not state how much education you should have, but you will be given preference for the job if you have a high school education. In some cases, you must be at least 21 years of age, but the laws on minimum age vary in individual States.

You must be physically able to lift and carry heavy objects, such as luggage, and to be on your feet (either standing or walking) throughout the workday.

You must be courteous, neat, and tactful in order to deal successfully with hotel guests.

Employment Prospects

There will be about 10,000 job openings for Bellmen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Bellmen to serve the increasing number of hotel guests. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities. Good chances for finding employment will be at hotels in large cities.

Advancement Opportunities

As an experienced Bellman, advance to a bell captain an a superintendent of services. more education you may ad a front office clerical positi

Employment Prospects

There will be about 10,000 job openings for Bellmen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Bellmen to serve the increasing number of hotel guests. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities. Good chances for finding employment will be at hotels in large cities.

Advancement Opportunities

As an experienced Bellman, you may advance to a bell captain and then to a superintendent of services. With more education you may advance to a front office clerical position.

Finding the Job

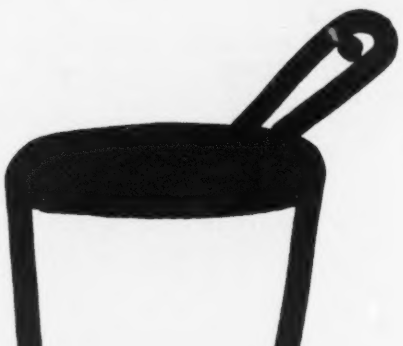
Apply directly at the employment or personnel office of any local hotel or motel. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspaper.

For more information on this kind of work, write to:

American Hotel and Motel Association
221 West 57th Street
New York, N.Y. 10019

SERVICE
OCCUPATIONS

cook helper; kitchen helper



Usual Duties

The Cook Helper does such washing, peeling, and cuttir vegetables and fruits; cleani preparing meats, seafood, ar stirring and straining soups sauces; weighing and meas ingredients; and carrying kitc ment. He also helps clean th and cooking utensils.

The Kitchen Helper keeps w equipment, and utensils clean His duties include washing wo walls, and equipment; sorti and garbage; washing pots, pa trays; and washing dishes a ware either by hand or by usi machine. He also moves su and equipment from storage kitchen and sets up banquet

Usual Duties

The Cook Helper does such things as washing, peeling, and cutting vegetables and fruits; cleaning and preparing meats, seafood, and poultry; stirring and straining soups and sauces; weighing and measuring ingredients; and carrying kitchen equipment. He also helps clean the kitchen and cooking utensils.

The Kitchen Helper keeps work areas, equipment, and utensils clean and neat. His duties include washing worktables, walls, and equipment; sorting trash and garbage; washing pots, pans, and trays; and washing dishes and silverware either by hand or by using a machine. He also moves supplies and equipment from storage to the kitchen and sets up banquet tables.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Work is performed indoors and often involves handling dirty and greasy objects.

Employer usually furnishes uniforms if they are required.

Qualifications

To become a Cook Helper or a Kitchen Helper, you must complete a few days of on-the-job training. Education is usually not important, but the more you have, the better are your chances of getting the job. In all States you must have a health certificate.

You must be physically able to be on your feet (either standing or walking) for long periods of time.

Employment Prospects

There will be thousands of job openings for Cook Helpers and Kitchen Helpers during the next 10 years. These job openings will come about because of the need to replace workers who will leave their jobs for various reasons and because of the need for more Cook Helpers and Kitchen Helpers due to the increasing number of eating and drinking establishments. As a result, your chances of getting a job as a Cook Helper or a Kitchen Helper are good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at large restaurants in large cities.

As a student you can usually obtain part-time work and summer work at boarding houses and small restaurants in almost any community.

This kind of work is available to both men and women.

Advancement O

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Employment Prospects

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Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at large restaurants in large cities.

As a student you can usually obtain part-time work and summer work at boarding houses and small restaurants in almost any community.

This kind of work is available to both men and women.

Advancement Opportunities

As an experienced Cook Helper or Kitchen Helper, you may advance to such jobs as cook, counterman, or pantryman.

Finding the Job

Apply directly at the employment or personnel office of any local restaurant, hotel, boarding house, hospital, cafeteria, or other establishment that serves food. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers.

For more information on this kind of work, write to:

Educational Director
National Restaurant Association
1530 North Lake Shore Drive
Chicago, Ill. 60610

SERVICE
OCCUPATIONS

cosmetologist; cosmetologist apprentice (beauty operator; beauty-operator apprentice)

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tor apprentice)

Usual Duties

The Cosmetologist (Beauty Operator) provides a variety of beauty services to customers. She gives permanent waves, and shampoos, cuts, sets, styles, straightens, bleaches, and tints their hair. She also gives manicures and scalp and facial treatments, provides makeup analyses, shapes eyebrows, and cleans and styles wigs and hair pieces. At other times she makes appointments for customers, cleans her equipment, and sterilizes her instruments. In doing her job, she uses clippers, scissors, razors, brushes, combs, hair dryers, and other instruments and equipment. She also uses dyes, tints, bleaches, shampooing and rinsing solutions, and skin-conditioning lotions and creams.

The Cosmetologist (Beauty Operator) Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Cosmetologist (Beauty Operator) within a given time.

Characteristics of Job

Work is steady through the year, usually with a 5-day, 40-hour workweek. Work schedule usually includes late afternoons and Saturdays. Work is performed indoors in pleasant surroundings.

Some employers require you to furnish your own work uniforms.

Employer sometimes requires workers to have, or to acquire, their own work aids, such as brushes, combs, and clips.

Qualifications

To become a Cosmetologist (Beauty Operator), you must obtain a license in the State in which you intend working. To become eligible to take the State examination and thereby obtain your license, you must successfully complete a State-approved cosmetology course in either a public vocational school or a private school, or you must successfully complete an apprenticeship program. If you attend either a public or a private school on a full-time basis, you can complete your training within a period of 6 to 9 months. In some public schools you may be required to take academic subjects required for a high school diploma. In this case, your training would be from 2 to 3 years. Apprenticeship training usually continues over a period of 1 to 2 years. In addition, you must be at least 16 years of age, have a health certificate, and, generally, have at least an eighth grade education. In some States you must have a 10th grade education. In a few States you must have a 12th grade education.

You must be physically able to stand for long periods of time and to work rapidly and accurately with your hands and fingers when using brushes, combs, clippers, and other work aids. You must have good eyesight with normal color vision to see differences in various shades of hair and to apply color cosmetics.

You must be friendly, tactful, neat, and have a creative imagination to deal successfully with customers.

Employment Prospects

There will be about 430,000 job openings for Cosmetologists (Beauty Operators) during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Cosmetologists (Beauty Opertors) to meet the needs of the growing population and the increased attention people are giving to personal appearance. As a result, your chances of getting an apprenticeship are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at shops or salons that are operated as independent establishments or in connection with hotels or department stores, mostly in large cities.

This kind of work is available to both men and women.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Cosmetologi
(Beauty Operator) you may adva
teaching position in a cosmeto
school, to a position as a demon
for a manufacturer of cosmeti
a position as an inspector for
cosmetology board, or by becom
a manager of a shop or salon.
Advancement may also come i
form of higher wages.

You may also go into business
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s kind of work is available to both
n and women.

apprenticeship training for this
d of work may be available through
r local State Employment Service
ce under the Manpower Development
Training Act.

Advancement Opportunities

As an experienced Cosmetologist (Beauty Operator) you may advance to a teaching position in a cosmetology school, to a position as a demonstrator for a manufacturer of cosmetics, to a position as an inspector for a State cosmetology board, or by becoming a manager of a shop or salon. Advancement may also come in the form of higher wages.

You may also go into business for yourself by opening your own shop.

Finding the Job

Apply directly at any local independent beauty shop or salon and also at the employment or personnel office of any local hotel, department store, specialty store, motion picture and television studio, or hospital. Register at your local State Employment Service office. Ask your high school counselor or beauty school instructor for information. Contact local union officials for information. Read the ads in your daily newspapers.

For more information on apprentice jobs, see page 20.

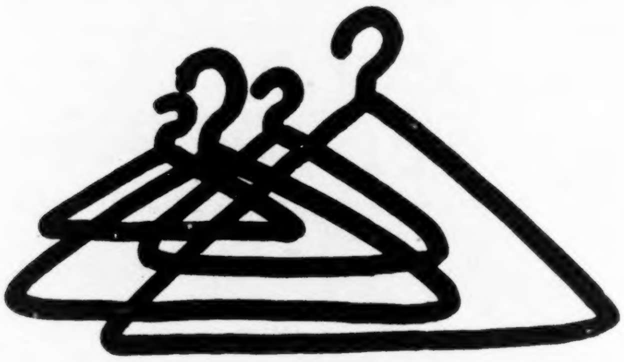
For more information on this kind of work, write to:

National Association of Cosmetology
Schools, Inc.
3839 White Plains Road
Bronx, N.Y. 10467

National Hairdressers and
Cosmetologists Association
175 Fifth Avenue
New York, N.Y. 10010

SERVICE
OCCUPATIONS

dry-cleaner helper



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Usual Duties

The Dry-Cleaner Helper assists the Dry Cleaner to dryclean garments, drapes, and other materials. He performs a number of tasks. Some of them are: loading and unloading drycleaning and washing machines, extractors, and tumblers; moving articles to and from machines, using a handtruck; hand scrubbing articles such as shirts and raincoats (which require more vigorous action than obtained from wetcleaning machines), using brushes and soap solution; cleaning filters or drycleaning machines; and sorting and distributing cleaned garments to pressers.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5- or 6-day, 40- to 48-hour workweek. Work is performed indoors in a wet and humid atmosphere.

Qualifications

To become a Dry-Cleaner Helper, you must complete a few weeks of on-the-job training. You will be given preference for this job if you have a high school education, but it is not required. Courses in chemistry and any vocational school or equivalent courses in drycleaning and equipment maintenance will be very useful to you.

You must be physically able to stand and walk throughout the workday and to work rapidly and accurately with your hands and fingers when loading and unloading drycleaning machines, sorting garments, and cleaning filters and oiling machines. You must have good eyesight with normal color vision to inspect, spot, and sort garments.

Employment Prospects

There will be thousands of job openings for Dry-Cleaner Helpers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Dry-Cleaner Helpers due to the increase in the volume of business. As a result, your chances of getting a job are good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at large drycleaning plants in large cities.

As a student, you can usually obtain part-time work at drycleaning plants in the spring and fall when the business work load is at its peak.

Advancement Opp

As an experienced
you may advance
dry cleaner and sp

Employment Prospects

There will be thousands of job openings for Dry-Cleaner Helpers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Dry-Cleaner Helpers due to the increase in the volume of business. As a result, your chances of getting a job are good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at large drycleaning plants in large cities.

As a student, you can usually obtain part-time work at drycleaning plants in the spring and fall when the business work load is at its peak.

Advancement Opportunities

As an experienced Dry-Cleaner Helper, you may advance to jobs such as dry cleaner and spotter.

Finding the Job

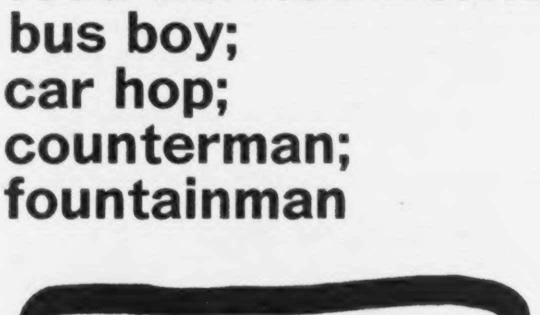
Apply directly at the employment or personnel office of any local drycleaning plant. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers.

For more information on this kind of work, write to:

The National Institute of Dry Cleaning
909 Burlington Avenue
Silver Spring, Md. 20910

SERVICE
OCCUPATIONS

food-service workers: bus boy; car hop; counterman; fountainman



Usual Duties

The Bus Boy ca
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and fruit juices.
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The Car Hop ta
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removes the trays

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Usual Duties

The Bus Boy carries dirty dishes from the dining room to the kitchen. He keeps a supply of clean linens and tableware in the dining room and a supply of foods at the service bar. He also sets tables, serves water and butter to customers, and makes coffee and fruit juices. He may also have to run errands, deliver foods, and help with the cleaning.

The Counterman serves food from the counter and steamtables in a cafeteria or to diners at a counter in a lunchroom or coffeeshop. In a cafeteria his duties are usually limited to serving food and cleaning equipment. In a lunchroom or coffeeshop he takes orders and calls them to workers in the kitchen, makes up customers' checks, and may take their payments. In some places he also prepares sandwiches, salads, and other quick foods, and sells candy, cigars, cigarettes, and other items.

The Fountainman prepares soft drinks and ice cream dishes at a soda fountain.

The Car Hop takes the customers' orders at a drive-in restaurant, calls or carries them to the kitchen, brings the trays of food to the customers' cars and fastens them onto the car doors. After they have eaten, she takes the customers' payments and removes the trays and dirty dishes.

Characteristics of Job

Work is steady throughout the year, usually with a 5- or 6-day, 40- to 48-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Work is performed both indoors and outdoors in all kinds of weather.

Some employers require you to furnish your own work uniforms.

Qualifications

When applying for a job as a Food-Service Worker, you will be given preference if you have a high school education, but it is not required. In many States you must be at least 21 years of age if you intend working where alcoholic beverages are served, or 18 years of age where food only is served. In most States you must have a health certificate.

You must be physically able to be on your feet (either standing or walking) for long periods of time.

You must be friendly, neat, and courteous to deal successfully with customers.

Employment Prospects

There will be many thousands of job openings for Food-Service Workers during the next 10 years. These job openings will come about because of the need to replace workers who will leave their jobs for various reasons and because of the need for more Food-Service Workers due to the increasing number of food-serving establishments. As a result, your chances of getting a job as a Food-Service Worker are very good.

Jobs are found in nearly all communities. Good chances for finding employment will be at chain or other large restaurants and cafeterias in large cities.

As a student you can usually obtain part-time work and summer work at eating and drinking establishments in large cities.

This kind of work is available to both men and women.

Advancement Opportunities

As an experienced Food-Service
you may advance to such jobs
waiter or waitress, cashier, hoste
and cook.

Employment Prospects

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As a student you can usually obtain part-time work and summer work at eating and drinking establishments in large cities.

This kind of work is available to both men and women.

Advancement Opportunities

As an experienced Food-Service Worker, you may advance to such jobs as waiter or waitress, cashier, hostess, and cook.

Finding the Job

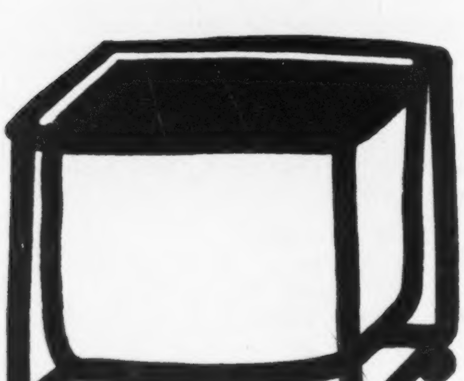
Apply directly at the employment or personnel office of any local restaurant, cafeteria, drive-in restaurant, drug store, or establishment that has a soda fountain and lunchonette, such as a department store or variety store. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers.

For more information on this kind of work, write to:

Educational Director
National Restaurant Association
1530 North Lake Shore Drive
Chicago, Ill. 60610

SERVICE
OCCUPATIONS

laundry laborer



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Usual Duties

The Laundry Laborer prepares laundry for processing and distributes laundry. In doing this, he performs a variety of duties. Some of them are: unloading soiled laundry from trucks; opening bundles of soiled laundry and placing them on a conveyor belt or dropping them down a chute for later distribution to other laundry workers; weighing laundry bundles and recording the weights on tickets; removing bundles from the conveyor, fastening identification pins to them, and distributing them to other laundry workers, using a handtruck; sorting net bags containing clean wash according to identification tags, and sorting empty net bags according to their color and size; and collecting identification tags from lots of laundered articles for re-use.

Characteristics of Job

Work is steady through the year, usually with 5- or 6-day, 40- to 48-hour workweek. Work schedule may include Saturdays. Overtime is usually available.

Work is performed indoors in a hot, humid atmosphere and often involves handling dirty and soiled objects.

Qualifications

To become a Laundry Laborer, you must complete a few days of on-the-job training. When applying for this job, you will be given preference if you have a high school education, but it is not required.

You must be physically able to be on your feet (either standing or walking) for long periods of time and to lift heavy bundles of laundry frequently.

Employment Prospects

There will be many thousands of job openings for Laundry Laborers during the next 10 years. These job openings will come about because of the need to replace workers who will leave their jobs for various reasons and because of the need for more Laundry Laborers due to the increasing number of laundry establishments.

As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities. Good chances for finding employment will be at large establishments in large cities.

Advancement Opportunitie

As an experienced Laund
you may advance to a job
foreman over other laborer
large establishment.

Employment Prospects

There will be many thousands of job openings for Laundry Laborers during the next 10 years. These job openings will come about because of the need to replace workers who will leave their jobs for various reasons and because of the need for more Laundry Laborers due to the increasing number of laundry establishments.

As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities. Good chances for finding employment will be at large establishments in large cities.

Advancement Opportunities

As an experienced Laundry Laborer, you may advance to a job as a working foreman over other laborers in a large establishment.

Finding the Job

Apply directly at the employment or personnel office of any local laundry. Register at your local State Employment Service office. Ask your high school counselor for information.

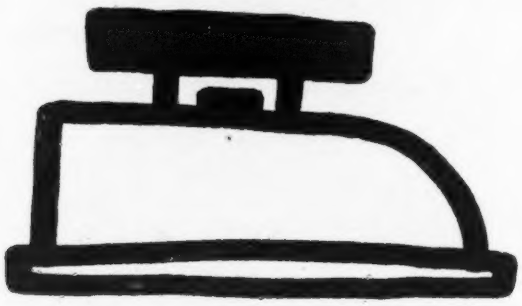
Read the ads in your daily newspapers.

For more information on this kind of work, write to:

The National Institute of Dry Cleaning
909 Burlington Avenue
Silver Spring, Md. 20910

SERVICE
OCCUPATIONS

machine presser; hand presser



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Usual Duties

The Machine Presser and Hand Presser iron and press laundry and dry-cleaning articles.

The Machine Presser uses a buck press. He spreads out the article to be ironed onto the buck or padded table of the machine. Then he pulls the pressing head down onto the article and pushes a pedal or button to apply steam to the article. After pressing the article completely, he removes it from the machine and hangs it on a rack.

The Hand Presser does similar work, using a hand iron. He sets the iron at the correct temperature, places the article in position, and then smooths, shapes, and sprays the article. After this, he irons it. Sometimes he pins or folds the ironed article.

Characteristics of Job

Work is steady throughout the year, usually with 5- or 6-day, 40- to 48-hour workweek. Work is performed in a noisy, hot, and humid atmosphere.

Qualifications

To become a Machine Presser or a Hand Presser, you must complete about 3 months of on-the-job training. To qualify for these jobs, you need not have a high school education, but you will be given preference if you have it.

You must be physically able to be on your feet (either standing or walking) for long periods of time and to work rapidly and accurately with your hands and fingers when handling machine controls and moving laundry and drycleaning articles.

Employment Prospects

There will be thousands of job openings for Machine Pressers and Hand Pressers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for othr reasons and because of the need for more Machine Pressers and Hand Pressers due to the increasing number of laundry and drycleaning establishments. As a result, your chances of getting a job are good.

Jobs are found in nearly all communities. Good chances for finding employment will be at laundries and drycleaning plants in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportuniti

As an experienced Machi
Hand Presser, you may a
foreman or supervisory
pressers, especially in
establishments.

Employment Prospects

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This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Machine Presser or Hand Presser, you may advance to a foreman or supervisory job over other pressers, especially in large establishments.

Finding the Job

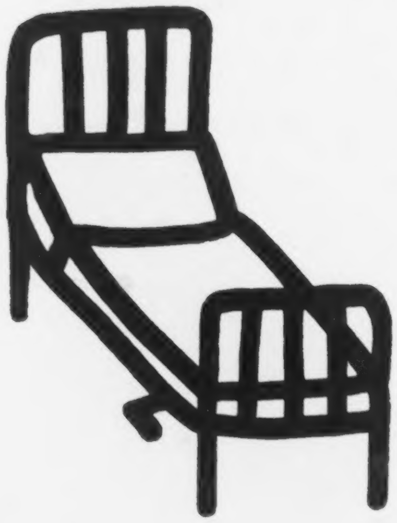
Apply directly at the employment or personnel office of any local laundry, drycleaning plant, or establishment concerned with manufacture or alteration of wearing apparel. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers.

For more information on this kind of work, write to:

The National Institute of Dry Cleaning
909 Burlington Avenue
Silver Spring, Md. 20910

SERVICE
OCCUPATIONS

nurse aid; orderly



Usual Duties

The Nurse Aid and the Orderly work under the direction of the nursing and medical staff in a hospital. They answer signal lights to find out what patients need. They also bathe, dress, and undress patients; drape them for examinations and treatments; give alcohol rubs; and help them in and out of bed and to and from other hospitals areas.

They carry meal trays and may feed the patients if they cannot feed themselves.

They also take and record patients' temperatures and pulses as requested by physicians.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends.
Work is performed indoors.

Some employers require you to furnish your own work uniforms.

Qualifications

To become a Nurse Aid or an Orderly, you must complete several months of on-the-job training. To qualify for these jobs, you usually must have a high school education. Courses in home nursing and first aid will be very useful to you. You must be at least 17 years of age. In all States you must have a health certificate.

You must be physically able to be on your feet (either standing or walking) for long periods of time. You must be able to work rapidly and accurately with your hands and fingers when bathing and dressing or undressing patients.

You must be friendly, neat, and tactful to get along well with the patients.

Employment Prospects

There will be many thousands of job openings for Nurse Aids and Orderlies during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Nurse Aids and Orderlies to take care of the ever-increasing number of patients. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities. Good chances for finding employment will be at hospitals in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportuniti

As an experienced Nurse A
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Advancement Opportunities

As an experienced Nurse Aid or Orderly, you may advance to a supervisory job over the other Nurse Aids and Orderlies, especially in large hospitals. With further training in State-controlled training course consisting of 1 year of specialized classroom work and clinical practice work, you may advance to a job as licensed practical nurse.

Finding the Job

Apply directly at the employment or personnel office of any local hospital, nursing home, convalescent home, sanitorium, or medical clinic. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

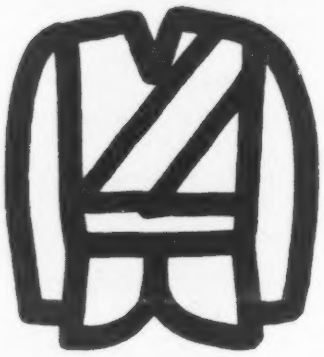
For more information on this kind of work, write to:

American Hospital Association
840 North Lake Shore Drive
Chicago, Ill. 61611

Department of Medicine and Surgery
Veterans Administration
Washington, D.C. 20420

SERVICE
OCCUPATIONS

policeman; police cadet



Usual Duties

The Policeman has to preserve law and order and protect people and their property. He patrols an assigned area on foot, on horseback, on a motorcycle, or in a patrol car to prevent crime and disturbances of peace. In patrolling his area, he observes people and things and reports any suspicious person or any hazard to the public safety to his supervisor. He also breaks up unruly crowds and directs and reroutes traffic around fires and other causes of traffic disruption. In case of an accident, he rushes to the scene, renders first aid to injured persons, and investigates the causes and results of the accident. At other times he inspects licensed public establishments to insure compliance with rules and regulations. On still other occasions he arrests persons in the act of committing a crime. Very often he issues tickets to traffic violators. At the end of his workday he writes an activity report and turns it in to his supervising officer.

The Police Cadet in large cities attends classes to learn about police work and also performs clerical and other tasks not directly related to enforcement work until he is 21 years of age. Then he joins the police force, usually as a patrolman.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek and often includes evenings, nights, holidays, and weekends.

Worker is usually required to be on 24-hour call, and in an emergency he may work long hours of overtime. Work is often performed outdoors in all kinds of weather.

Work is dangerous because it involves chasing speeding motorists and capturing lawbreakers.

Employer usually provides special allowances for uniforms and furnishes a revolver, night stick, handcuffs, and other required equipment.

Qualifications

To become a Policeman in a large city, you usually must complete several weeks of classroom and on-the-job training. In a small community you may go through only 1 week of on-the-job training. You generally must have at least a high school education. A few cities require some college training. Courses in English, American history, civics and government, business law, sociology, and physics will be very useful to you. Physical education and sports activities are also helpful in developing the physical stamina and agility needed in police work. You must pass written and physical examinations given to you by your local office of the Civil Service Commission. You must be a U.S. citizen, 21 years of age, and able to meet certain height and weight requirements. You must be honest, show good judgment, and have a sense of responsibility.

You do not have to wait until you're 20 or 21 years of age to enter police work. You can become a Police Cadet while still in your teens.

Employment Prospects

There will be about 150,000 job openings for Policemen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Policemen to safeguard a growing population and its property. As a result, your chances of getting a job as a Police Cadet are very good.

Jobs are found in practically all communities. Good chances for finding employment will be in large cities.

This kind of work is available to both men and women.

Advancement Oppor

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Jobs are found in practically all communities. Good chances for finding employment will be in large cities.

This kind of work is available to both men and women.

Advancement Opportunities

As an experienced Policeman, you may advance to the rank of corporal and from that to sergeant. To do so, however, you must pass a written examination. You may also, after serving as a patrolman, enter into more specialized work, such as traffic control, communications, or laboratory work. As a Police Cadet you will advance to the rank of private upon successful completion of your training program and at the age of 21.

Finding the Job

Visit your local police department and ask for information. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

International Association of Chiefs
of Police
1319 18th Street, NW.
Washington, D.C. 20036

International Association of
Women Police
100 North LaSalle Street
Chicago, Ill. 60602

SERVICE
OCCUPATIONS

waiter; waitress

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Usual Duties

The Waiter or Waitress takes customers' orders, serves food and beverages, makes out checks, and sometimes takes customers' payments. Their exact duties depend on the size and kind of place where they work.

In small establishments, especially those that specialize in quick service, they may set up and clear tables, carry dishes back to the kitchen, help clean equipment, prepare sandwiches, collect money, and make change.

In some formal restaurants they may prepare salads and other food at the customers' tables, recommend wines, and see to the overall quality of service and food.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Work is performed indoors in pleasant surroundings.

Some employers require you to furnish your own work uniforms.

Qualifications

To become a Waiter or a Waitress, you must complete a few weeks of on-the-job training. To qualify for these jobs, you usually must have a high school education. Courses in home economics and special courses offered by restaurant associations will be very useful to you. You usually must be 21 or at least 18 years of age if alcoholic beverages are served, depending on the requirements of the State in which you intend working. In all States you must have a health certificate.

You must be physically able to be on your feet (either standing or walking) for long periods of time. You must be neat, courteous, and tactful to deal successfully with customers.

Employment Prospects

There will be about 640,000 job openings for Waiters and Waitresses during the next 10 years. These job openings will come about because of the need to replace workers who will leave their jobs for various reasons and because of the need for more Waiters and Waitresses due to the increasing number of eating and drinking establishments. As a result, your chances of getting a job are good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at restaurants in large cities.

As a student you can usually obtain part-time work and summer work at restaurants in almost any community.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

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Employment Prospects

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This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Waiter or Waitress, you may advance to such jobs as headwaiter, captain, hostess or even cashier.

Finding the Job

Apply directly at the employment or personnel office of any local restaurant, hotel, drugstore, or other establishment that serves food and drink. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers.

For more information on this kind of work, write to:

Educational Director
National Restaurant Association
1530 North Lake Shore Drive
Chicago, Ill. 60610

FARMING,
FISHERY,
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Usual Duties

The Agricultural Aid helps professional workers carry out experiments concerned with field crops, fruits, vegetables, livestock, poultry, and other kinds of farm products and phases of farming.

He feeds, waters, and cares for animals.

He prepares the soil and plants crops. When these crops are ready, he collects and preserves the seed, and harvests, weighs, and stores the corps.

He may also help keep records.

He also may be required to help with office or sales work.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors and outdoors in all kinds of weather.

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Qualifications

To qualify as a beginning worker for this job, you must have at least a high school education. Courses in physical, chemical, biological, and agricultural sciences will be very useful to you.

You must be physically able to feed, water, and care for livestock; prepare the soil and plant crops; and harvest and store the crops when they are ready. You must be able to work rapidly and accurately with your hands and fingers when helping the professional research workers carry out experiments concerned with all phases of farming. You must have good eyesight to weigh farm products accurately.

You must be patient and able to carry out instructions accurately.

Employment Prospects

There will be thousands of job openings for Agricultural Aids during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Agricultural Aids to assist the professional workers in the expected growth in agricultural research activities. As a result, your chances of getting a job are good.

Jobs are found in all communities and in many establishments. Good chances for finding employment will be at government and private research centers in farm areas where they are located.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunit

As an experienced Agricu
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Employment Prospects

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Jobs are found in all communities and in many establishments. Good chances for finding employment will be at government and private research centers in farm areas where they are located.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Agricultural Aid, you may advance to a senior or supervisory job over other Agricultural Aids. You may also easily transfer to other industries, such as nonresearch jobs on large farms, and may become a farm manager.

You may also go into business for yourself by establishing and operating your own farm, applying skills you have learned by working with professional research workers.

Finding the Job

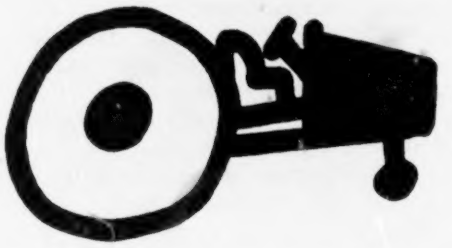
Apply directly at the employment or personnel office of any local county Soil Conservation Service office, Federal and State experiment station, private research center, or any private business concerned with agriculture, such as feed and seed companies, farmers' cooperatives, and companies producing livestock medicine.
Register at your local State Employment Service office. Ask your high school counselor for information.
Read the ads in your daily newspapers.
Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

Office of Personnel
U.S. Department of Agriculture
Washington, D.C. 20250

FARMING,
FISHERY,
FORESTRY, AND
RELATED OCCUPATIONS

farm hand



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Usual Duties

The Farm Hand helps the farm operator or supervisor to prepare and fertilize the soil; plant, care for, and harvest the crops; tend the livestock and poultry; and keep the farm machinery, buildings, and fences in good condition.

He also operates tractors and towed machinery to till soil and plant, cultivate, and harvest crops.

On livestock farms, he feeds, moves, and handles the livestock, examines them for disease and injury, and puts medications on cuts and bruises.

He may also keep records on production, breeding, expenses, and income.

Characteristics of Job

Work is seasonal and hours of work are long in busy seasons. Work schedule may include weekends, particularly on dairy, livestock, and poultry farms. Modern farms now provide regular hours of work and vacations.

For workers employed throughout the year, housing, fuel, garden space, fresh dairy products, and meat are often added to cash wages. Work is performed mostly outdoors.

Qualifications

To qualify as a beginning worker for this job, you must be in good health and physically strong. Courses in vocational agriculture and maintenance and repair of farm machinery will be very useful to you.

You must be physically able to plow, plant, and harvest crops; tend livestock and poultry; keep farm machinery, buildings, and fences in good condition; and work with handtools and operate tractors and other farm machines. You must be able to work rapidly and accurately with your hands and fingers when using handtools such as shovels, rakes, and hoes when planting and caring for crops, especially on smaller farms. You must have good eyesight to operate tractors and other farm machinery.

Employment Prospects

There will be thousands of job openings for Farm Hands who can operate and care for farm machinery and equipment during the next 10 years. These job openings will come about because of the need to replace workers who retire or leave their jobs for other reasons and the need for more Farm Hands to operate and care for the increasing amount of farm machinery and equipment in use. As a result, your chances of getting a job are good.

Jobs are found in all communities and in many establishments. Good chances for finding employment will be at large farms or ranches in appropriate rural areas.

As a student you can usually obtain part-time work at large farms during the growing and harvesting seasons in any agricultural area.

This kind of work is available to both men and women. Many of the larger farms employ married couples.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Farm Hand, may advance to jobs as forema farm manager and may supervi seasonal workers.

Employment Prospects

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Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Farm Hand, you may advance to jobs as foreman and farm manager and may supervise seasonal workers.

Finding the Job

Apply directly to farmers and contact your County Agricultural Agent. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

Public Information Office
U.S. Department of Agriculture
Washington, D.C. 20250

FARMING,
FISHERY,
FORESTRY, AND
RELATED OCCUPATIONS

forester aid

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Usual Duties

The Forester Aid helps to inventory, protect, and reforest timberlands. He observes, measures, and writes down information such as the kinds of trees, how much lumber certain groups of trees will produce, what the ground surface is like for logging or other purposes, and the death rate of seedling trees.

He uses a staff compass and chain for measuring and mapping areas.

He also collects and reports on the readings of instruments such as the rain gage, thermometer, stream flow recorder, and soil moisture gage.

He also helps to enforce the rules and regulations of recreation areas and answers questions about the forest and its wildlife.

In season, he plants, sprays, prunes, and thins trees, patrols for fires, or leads a crew to fight forest fires.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors and outdoors in all kinds of weather.

Qualifications

To qualify as a beginning worker for this job, you must have at least a high school education. Courses in biology, botany, drafting, mathematics, and plant science will be very useful to you. You will be required to pass a competitive Civil Service examination if you seek State or Federal employment.

You must be physically able to walk over rough ground, participate in fighting forest fires, and work by yourself in lonely places for long periods of time. You must be able to work rapidly and accurately with your hands and fingers when using handtools to plant, spray, prune, and thin trees. You must have good eyesight to report accurately on the readings of instruments such as a rain gage, thermometer, stream flow recorder, and soil moisture gage. You must have a good sense of hearing to communicate with forest and park visitors when answering questions about the forest and its wildlife and when explaining rules and regulations of recreation areas.

You must be friendly, patient, tactful, and courteous to get along well with the public.

Employment Prospects

There will be about 8,000 job openings for Forester Aids during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Forester Aids due to the increasing demand for forest products and recreation facilities and the trend toward more scientific management of forest land. As a result, your chances of getting a job are good.

Jobs are found in many communities and in many establishments. Good chances for finding employment will be at private and government forestry services in the southeast, northeast, and Pacific northwest areas of the United States.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Forester Aid, you may advance to a job as forest crew supervisor.

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Employment Prospects

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Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Forester Aid, you may advance to a job as forest crew supervisor.

Finding the Job

Apply directly at the employment or personnel office of any local logging and sawmill company, private forestry management group, and State and Federal forestry services. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

U.S. Forest Service
U.S. Department of Agriculture
Washington, D.C. 20250

American Forest Products
Industries, Inc.
1816 N Street, NW.
Washington, D.C. 20036

FARMING,
FISHERY,
FORESTRY, AND
RELATED OCCUPATIONS

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Usual Duties

The Nursery Worker grows and cares for plants in a greenhouse or outside nursery. He plants, transplants, weeds, sprays, prunes, grafts, and fertilizes flowers, plants, shrubs, and young trees.

He may also dig up and grade nursery products and then wrap their roots and surrounding balls of earth in burlap so that they can be shipped or sold.

In addition, he cuts, lifts, and replants sod and gathers and processes seeds.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work schedule sometimes requires longer hours during planting season and holidays. Work is performed both indoors and outdoors.

Qualifications

To qualify as a beginning worker for this job, you usually must have a high school education. Courses in biology and vocational agriculture will be very useful to you.

You must be physically able to stand and walk for long periods of time. In large nurseries you may be involved with such heavy work as tending soil-building crops and operating machinery to plow and cultivate the crops. You must be able to work rapidly and accurately with your hands and fingers when using handtools to plant, transplant, weed, spray, prune, and graft flowers, plants, shrubs, and young trees. You must have good eyesight with normal color vision to dig up and grade nursery products to be shipped.

You must be friendly, patient, tactful, and courteous when dealing with customers.

Employment Prospects

There will be many thousands of job openings for Nursery Workers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and the need for more Nursery Workers to meet the increasing demand for nursery products. As a result, your chances of getting a job are good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at nurseries in large cities.

This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Nursery Worker, you may advance to a job as forem within your company.

Employment Prospects

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This kind of work is available to both men and women.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Nursery Worker, you may advance to a job as foreman within your company.

Finding the Job

Apply directly at the employment or personnel office of any local nursery and greenhouse establishment, florist, and cemetery. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

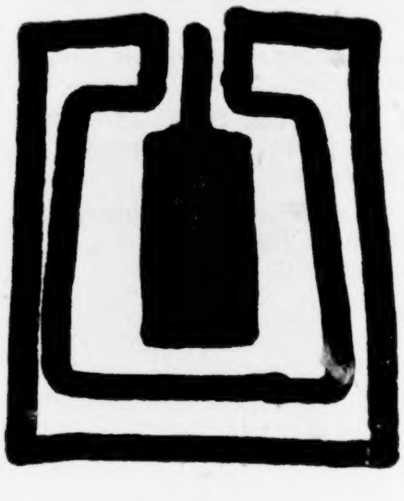
For more information on this kind of work, write to:

Public Information Office
U.S. Department of Agriculture
Washington, D.C. 20250

American Association of Nurserymen
835 Southern Building
Washington, D.C. 20005

PROCESSING
OCCUPATIONS

coremaker; coremaker apprentice; coremaker helper



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Usual Duties

The Coremaker makes sand cores that are used in molds to form holes or hollows in metal castings. He first cleans the core box with a blast of compressed air, then sprinkles parting sand on the inside of the box to make it easy to remove the finished core, and partially fills the core box with sand. Next, he packs the sand in the core box by using his hands, a hand rammer, or an air rammer. After packing this amount of sand, he inserts wires into the sand to make it stay together more firmly. Following this, he adds more sand into the core box and packs it into the desired shape. He then overturns the core box onto a metal plate and lifts the box from the sand core. He patches cracked or chipped places on the core and smooths any rough spots on it with a spoon and a trowel. If the cores are large and heavy, a crane operator moves the core boxes and cores.

The Coremaker Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Coremaker within a given time.

The Coremaker Helper assists the Coremaker in making sand cores. He performs a number of tasks. Some of them are: carrying sand to the core room; piling cores on racks for drying; and cleaning the work area.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in a dusty, noisy, dirty, and hot environment.

Qualifications

To become a Coremaker, you must either complete an apprenticeship program that consists of 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training.

To qualify for an apprenticeship program, you must have at least an eighth grade education, although sometimes more education is required. Courses in mathmatics, shop drawing, and blueprint reading will be very useful to you. You may be required to take tests to determine your aptitude for the trade.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to lift and carry heavy objects, to stand for long periods of time, to stoop, crouch, and kneel frequently, and to work rapidly and accurately with your hand and fingers when using handtools.

Employment Prospects

There will be about 5,000 job openings for Coremakers during the next 10 years. These job openings will come about mostly because of the need to replace workers who will retire or leave their jobs for other reasons but also because of a slight need for more Coremakers to meet a moderate increase in the use of cores. As a result, your chances of getting an apprenticeship or a job as a helper are only fair. Your best chance for finding employment will be at industrial foundries.

Preapprenticeship training for this kind of work may be available through your State Employment Service office under the Manpower Development and Training Act.

Advancement

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As a helper,
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Employment Prospects

There will be about 5,000 job openings for Coremakers during the next 10 years. These job openings will come about mostly because of the need to replace workers who will retire or leave their jobs for other reasons but also because of a slight need for more Coremakers to meet a moderate increase in the use of cores. As a result, your chances of getting an apprenticeship or a job as a helper are only fair. Your best chance for finding employment will be at industrial foundries.

Preapprenticeship training for this kind of work may be available through your State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Coremaker, you may advance to a shop foreman.

As an apprentice, you will advance to a journeyman Coremaker upon successful completion of 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Coremaker by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local foundry. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Foundry Educational Foundation
1138 Terminal Tower
Cleveland, Ohio 44113

National Foundry Association
9838 Roosevelt Road
P. O. Box 76
Westchester, Ill. 60156

PROCESSING
OCCUPATIONS

molder; molder apprentice; molder helper

Usual Duties

The Molder makes sand
in producing metal cast
places the bottom half
box (flask) and the botto
pattern of the object to be
a wood board or metal
sprinkles or sprays a pow
substance on the two part
their sticking together.
this, he puts sand around
and into the flask, using
a shovel. Then he packs
into place by using hand
pneumatic (air pressure)
He turns this half of the
and places the top half of
and the other half of the
top of the lower half of th
Then he again puts the
substance on the pattern
sand, and packs it into
he removes the pattern f
lower part of the flask, ma
and a channel in the mold
handtools, inserts a core i
and puts the flask togethe
He then pours molten met
the hole and into the mol
molds are large and heav
operator moves flasks, patte
boards, and molds.

The Molder Apprentice (Se
—General Comments) lear
form all the tasks of the
within a given time.

The Molder Helper assists
in making sand molds. He
a number of tasks. Some
moving sand, flasks, and
materials in and around th
by hand or by wheelbarro
cart; putting flasks togethe
handtools; and sweeping a
work areas.

ce;

Usual Duties

The Molder makes sand molds for use in producing metal castings. He places the bottom half of a molding box (flask) and the bottom half of the pattern of the object to be made onto a wood board or metal plate and sprinkles or sprays a powdered substance on the two parts to prevent their sticking together. Following this, he puts sand around the pattern and into the flask, using a scoop or a shovel. Then he packs the sand into place by using hand rammers or pneumatic (air pressure) rammers. He turns this half of the mold over and places the top half of the flask and the other half of the pattern on top of the lower half of the mold. Then he again puts the powdered substance on the pattern, adds more sand, and packs it into place. Next, he removes the pattern from the lower part of the flask, makes a hole and a channel in the mold with his handtools, inserts a core into the mold, and puts the flask together again. He then pours molten metal through the hole and into the mold. If the molds are large and heavy, a crane operator moves flasks, patterns, support boards, and molds.

The Molder Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Molder within a given time.

The Molder Helper assists the Molder in making sand molds. He performs a number of tasks. Some of them are: moving sand, flasks, and other materials in and around the foundry by hand or by wheelbarrow or push-cart; putting flasks together, using handtools; and sweeping and cleaning work areas.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in a dustry, noisy, dirty, and hot atmosphere.

Qualifications

To become a Molder you must either complete an apprenticeship program that consists of 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program you must have at least an eighth grade education. In many cases you must have a high school education. Courses in mathematics, drafting, and vocational shop work will be very useful to you.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to lift and carry heavy objects; to stand for long periods of time; to stoop, crouch, and kneel frequently; and to work rapidly and accurately with your hands and fingers when using handtools.

Employment Prospects

There will be about 9,000 job openings for Molders during the next 10 years. These job openings will come about mostly because of the need to replace workers who will retire or leave their jobs for other reasons and also because of the slight need for more Molders to meet a moderate increase in th use of molds. As a result, your chances of getting an apprenticeship or a job as a helper are only fair. Your best chance for finding employment will be at industrial foundries.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Employment Prospects

There will be about 9,000 job openings for Molders during the next 10 years. These job openings will come about mostly because of the need to replace workers who will retire or leave their jobs for other reasons and also because of the slight need for more Molders to meet a moderate increase in th use of molds. As a result, your chances of getting an apprenticeship or a job as a helper are only fair. Your best chance for finding employment will be at industrial foundries.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Molder, you may advance to a job as foreman.

As an apprentice, you will advance to a journeyman Molder upon successful completion of 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Molder by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local foundry. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers.

For more information on apprentice jobs, see page 20.

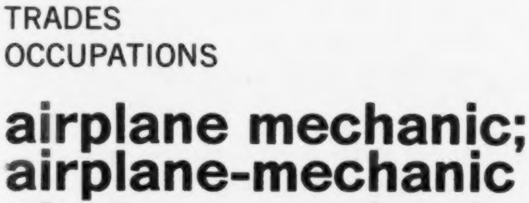
For more information on this kind of work, write to:

Foundry Educational Foundation
1138 Terminal Tower
Cleveland, Ohio 44113

National Foundry Association
9838 Roosevelt Road
Westchester, Ill. 60156

MACHINE
TRADES
OCCUPATIONS

airplane mechanic; airplane-mechanic apprentice; airplane-mechanic helper



Usual Duties

The Airplane Mecha
and overhauls aircr
engines. He rebui
reassembles parts
such as wings, fusel
using such tools as
and acetylene wel
and rivet guns. In
he examines it for
and oil leaks and l
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and other testing e
removes the engine
using a hoist or a
disassembles it, and
for defects. He rep
the defective parts
and installs the engi
He also repairs ins
electrical wiring,
hydraulic systems.

The Airplane-Mecha
(See Apprentice—G
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Airplane Mechanic

The Airplane-Mecha
the Airplane Mecha
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mechanics' handtoo
parts with solvents;
aircraft with a greas

chanic;
chanic apprentice;
chanic helper

Usual Duties

The Airplane Mechanic services, repairs, and overhauls aircraft and aircraft engines. He rebuilds, repairs, and reassembles parts of the airframe, such as wings, fuselage, and fuel tanks, using such tools as power shears, arc and acetylene welding equipment, and rivet guns. In repairing an engine, he examines it for cracked cylinders and oil leaks and listens to it for sounds of malfunctioning. He further tests the engine in operation, using ignition analyzer, compression checker, and other testing equipment. He removes the engine from the aircraft, using a hoist or a forklift truck, disassembles it, and inspects its parts for defects. He repairs or replaces the defective parts and reassembles and installs the engine in the aircraft. He also repairs instruments and electrical wiring, pneumatic, and hydraulic systems.

The Airplane-Mechanic Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Airplane Mechanic within a given time.

The Airplane-Mechanic Helper assists the Airplane Mechanic in servicing, repairing, and overhauling aircraft and aircraft engines. He performs a number of tasks. Some of them are: replacing parts, such as control cables, spark plugs, and tires, using mechanics' handtools; cleaning engine parts with solvents; and lubricating aircraft with a grease gun.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include nights, holidays, and weekends. Work is performed indoors and outdoors in all kinds of weather.

Qualifications

To become an Airplane Mechanic, you must complete an apprenticeship program that consists of 3 or 4 years of related classroom instruction and on-the-job training or graduate from a mechanics school that is approved by the Federal Aviation Agency. To qualify for an apprenticeship program, you usually must have a high school or trade school education. Courses in mathematics, physics, chemistry, and machine shop will be very useful to you. You must be between 20 and 30 years of age. You may be required to take tests to determine your aptitude for the trade. In most States you must have a license from the Federal Aviation Agency. To obtain this license you must pass a written examination and show that you can do the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to climb ladders when boarding and leaving an aircraft; to work in cramped places and in awkward positions; and to work rapidly and accurately with your hands and fingers when using handtools, measuring and testing instruments, and work aids.

Employment Prospects

There will be about 65,000 job openings for Airplane Mechanics during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for Airplane Mechanics to service and repair the increasing number of aircraft in use. As a result, your chances of getting an apprenticeship or a job as a helper are good.

Jobs are found in many communities and in many establishments. Good chances for finding employment will be at main airline terminals in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Airplane Mec
you may advance to a lead mech
or crew chief, and then to ins
lead inspector, and eventually t
shop foreman.

As an apprentice, you will adva
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As a helper, you can, if you w
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Employment Prospects

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Jobs are found in many communities and in many establishments. Good chances for finding employment will be at main airline terminals in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Airplane Mechanic, you may advance to a lead mechanic or crew chief, and then to inspector, lead inspector, and eventually to a shop foreman.

As an apprentice, you will advance to a journeyman Airplane Mechanic upon successful completion of 3 or 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Airplane Mechanic by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local airline, independent repair shop, air-taxi firm, aircraft manufacturing plant, and some Federal Government agencies, such as the Navy, Air Force, and Federal Aviation Agency. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

Information about job openings in a particular airline and the qualifications required may be obtained by writing to the personnel manager of the company. Addresses of individual companies are available from:

Air Transport Association of America
1000 Connecticut Avenue, NW.
Washington, D.C. 20036

Inquiries regarding jobs with the Federal Aviation Agency should be addressed to:

Personnel Officer
Federal Aviation Agency
Washington, D.C. 20553

Information concerning FAA-approved schools offering training for work as an airplane mechanic, pilot, or in other technical fields related to aviation may be obtained from:

Information Retrieval Branch
Federal Aviation Agency
Washington, D.C. 20553

MACHINE
TRADES
OCCUPATIONS

automobile mechanic; automobile-mechanic apprentice; automobile-mechanic helper

Usual Duties

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chanic;
chanic apprentice;
chanic helper

Usual Duties

The Automobile Mechanic repairs automobiles, buses, trucks, and other automotive vehicles. He first gets a description of the difficulty from the driver, then inspects the vehicle to determine the cause of the trouble. He also listens to the sound of its motor, and drives it to help locate the trouble. In inspecting and testing, he uses many kinds of equipment, such as compression gages and motor analyzers. He may remove a faulty unit, take it apart with handtools, and inspect its parts for wear with micrometers, calipers, and thickness gages. Then he repairs or replaces defective parts, such as pistons, rods, or gears. He also rebuilds parts such as crankshafts and cylinder blocks, using lathes, shapers, drill presses, and welding equipment. He rewires ignition and lighting systems, relines and readjusts the brakes, alines front ends, and replaces shock absorbers.

The Automobile-Mechanic Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Automobile Mechanic within a given time.

The Automobile-Mechanic Helper assists the Automobile Mechanic in repairing automotive vehicles. He performs a number of tasks. Some of them are: raising and lowering vehicles by means of hydraulic jacks; removing and disassembling units, using handtools; and cleaning units and parts with solvents.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include nights and weekends.

Employer usually requires workers to have, or to acquire, their own handtools. Employer usually furnishes work uniforms.

Qualifications

To become an Automobile Mechanic, you must either complete an apprenticeship program that consists of from 3 to 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school education. Courses in science, mathematics, English, and automobile repair work will be very useful to you.

You usually must have a driver's license.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important

You must be physically able to lift heavy objects, to work in awkward positions, and to work rapidly and accurately with hands and fingers when using tools and other work aids. You must have a good sense of hearing to listen to the sounds of motors in finding defects in them.

Employment Prospects

There will be about 200,000 job openings for Automobile Mechanics during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Automobile Mechanics to meet the demand caused by more automobiles and new automobiles with additional features. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Automobil
Mechanic, you may advance t
foreman or to a service manag
large repair shop.

You may also go into busines
yourself by opening your ow
shop or gasoline station.

As an apprentice, you will adv
a journeyman Automobile Me
upon successful completion
3 to 4 years of related classr
instruction and on-the-job tra

As a helper, you can, if you w
advance to a journeyman or
Automobile Mechanic by havi
required education, and then
for an apprenticeship or asking
employer for recognition as a

Employment Prospects

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Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Automobile Mechanic, you may advance to a foreman or to a service manager in a large repair shop.

You may also go into business for yourself by opening your own repair shop or gasoline station.

As an apprentice, you will advance to a journeyman Automobile Mechanic upon successful completion of from 3 to 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Automobile Mechanic by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local independent repair shop, new or used car or truck dealer, taxicab or automobile leasing company, garage or establishment where a fleet of vehicles is maintained, and at some department stores. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

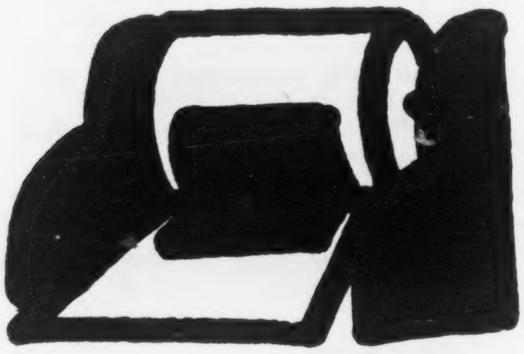
Automotive Services Industry Association
168 North Michigan Avenue
Chicago, Ill. 60601

Independent Garage Owners of America, Inc.
343 South Dearborn St.
Chicago, Ill. 60604

National Automobile Dealers Association
2000 K Street, NW.
Washington, D.C. 20006

MACHINE
TRADES
OCCUPATIONS

cylinder-press man; cylinder-press-man apprentice



ress man;
ress-man apprentice

Usual Duties

The Cylinder-Press Man operates a cylinder-type printing press. First, he checks the size, color, and type of paper and color of ink to be used from the job order. Then he cleans the inking rollers with solvent and replaces them in the press, using handtools. Next, he adjusts controls to regulate the flow of ink and packs the impression cylinder with tissue or folio. Then, he adjusts the delivery tapes and positions and locks forms (type setup or plate) on the bed of the press. He starts the press, runs off a proofsheet, and examines it to determine off-level areas, irregular inking, and other flaws. He then makes readjustments to correct the irregularities. He sets an automatic counter to make sure that the correct number of sheets will be printed, and starts press. During the run he constantly checks the printed matter to see that it is clear, lined up straight, that ink is not blotting, and that the colors line up properly.

The Cylinder-Press-Man Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Cylinder-Press Man within a given time.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available.

Work is performed indoors in noisy surroundings.

Qualifications

To become a Cylinder-Press Man, you must either complete an apprenticeship program that consists of 4 or 5 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school education. Courses in chemistry and physics will be very useful to you. You must take tests to determine your aptitude for the work.

You must be physically able to stand for long periods of time and to lift heavy type forms and press plates and to work rapidly and accurately with your hands and fingers when using handtools. You must have good eyesight with normal color vision to work on color presses.

Employment Prospects

There will be thousands of job openings for Cylinder-Press Men during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Cylinder-Press Men to meet the demands of the increasing use of color in printing by newspapers and other printing media. As a result, your chances of getting an apprenticeship are good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at newspapers in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Cylinder-Press you may advance to pressman-in charge of a newspaper or comme printing shop.

As an apprentice, you will advan to a journeyman Cylinder-Press upon successful completion of 5 years of related classroom instr and on-the-job training.

ployment Prospects

ere will be thousands of job openings
Cylinder-Press Men during the
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replace workers who will retire
leave their jobs for other reasons
d because of the need for more
linder-Press Men to meet the
mands of the increasing use of color
printing by newspapers and other
nting media. As a result, your
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good.

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d in many establishments. Good
ances for finding employment will
at newspapers in large cities.

eapprenticeship training for this
nd of work may be available through
ur local State Employment Service
ice under the Manpower Development
d Training Act.

Advancement Opportunities

As an experienced Cylinder-Press Man, you may advance to pressman-in-charge of a newspaper or commercial printing shop.

As an apprentice, you will advance to a journeyman Cylinder-Press Man upon successful completion of 4 or 5 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local newspaper or commercial printing shop. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

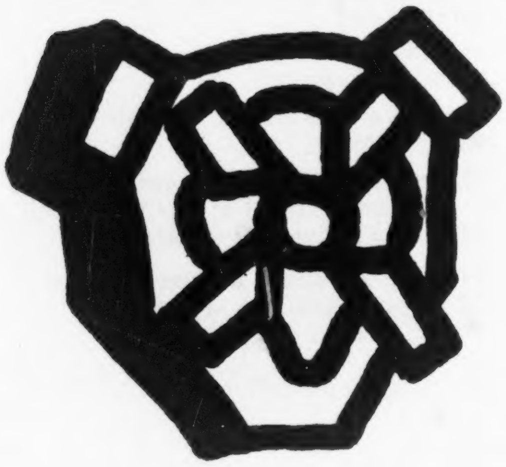
For more information on this kind of work, write to:

International Printing Pressmen and
Assistants' Union of North America
Pressmen's Home, Tenn. 37850

Printing Industries of America, Inc.
20 Chevy Chase Circle NW.
Washington, D.C. 20015

MACHINE
TRADES
OCCUPATIONS

diesel mechanic; diesel-mechanic apprentice; diesel-mechanic helper



hanic;
hanic apprentice;
hanic helper

Usual Duties

The Diesel Mechanic repairs diesel engines that are used to power buses, ships, trucks, railroad trains, electric generators, construction equipment, and other machines. He first determines why the engine is not working right by inspecting and testing its parts. In doing this, he uses such testing devices as a dynamometer and a special fuel injection testing instrument. After locating the cause of the trouble, he repairs or replaces defective parts and makes adjustments. If necessary, he makes replacement parts, using grinders, drills, and lathes. Often he removes an engine from a machine, using powered hoists, and takes it apart with handtools. Then he examines it for defects, repairs or replaces any defective parts, and puts it back into the machine.

The Diesel-Mechanic Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Diesel Mechanic within a given time.

The Diesel-Mechanic Helper assists the Diesel Mechanic in repairing diesel engines. He performs a number of tasks. Some of them are: dismantling motors, using handtools; cleaning parts, tools, and work areas; getting parts from stock and handing them and tools to the mechanic; and assembling certain parts of motor.

Characteristics of Job

Work is steady throughout the year, usually with a 5- or 6-day, 40- to 48-hour workweek. Work schedule may include evenings, nights, and weekends. Workers may be required to be on call in case of emergency. Overtime is usually available.

Work is performed indoors and outdoors in all kinds of weather and often involves handling dirty and greasy objects.

Some employers require you to furnish your own work uniforms. Employer usually requires workers to have, or to acquire, their own handtools.

Qualifications

To become a Diesel Mechanic, you must either complete an apprenticeship program that consists of 3 to 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school education. Courses in science, mathematics, machine shop work, and automobile repair work will be very useful to you. You may be required to take tests to determine your aptitude for the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to lift and carry heavy automotive parts, to work in cramped places and in awkward positions, and to work rapidly and accurately with your hands and fingers when using handtools.

Employment Prospects

There will be about 44,000 job openings for Diesel Mechanics during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Diesel Mechanics to meet the growing use of diesel engines to power vehicles and machinery. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be in large States where high levels of construction, commercial, industrial, and farming activity have resulted in the use of great numbers of diesel-powered machines.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opp

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Employment Prospects

There will be about 44,000 job openings for Diesel Mechanics during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Diesel Mechanics to meet the growing use of diesel engines to power vehicles and machinery. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be in large States where high levels of construction, commercial, industrial, and farming activity have resulted in the use of great numbers of diesel-powered machines.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Diesel Mechanic, you may advance to a leaderman, foreman, or service manager in organizations that operate or repair large fleets of diesel-powered equipment.

As an apprentice, you will advance to a journeyman Diesel Mechanic upon successful completion of 3 or 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Diesel Mechanic by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local firm that uses or services diesel-powered equipment; distributor or dealer that sells diesel engines, farm and construction equipment, and trucks; independent repair shop; manufacturer of diesel engines; or a company or government agency that repairs and maintains its own diesel-powered equipment. Register at your local State Employment Service office. Ask your high school counselor or trade school instructor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprenticeship jobs, see page 20.

For more information on this kind of work, write to:

International Association of Machinists
and Aerospace Workers
1300 Connecticut Avenue, NW.
Washington, D.C. 20036

Amalgamated Transit Union
5025 Wisconsin Avenue, NW.
Washington, D.C. 20016

Sheet Metal Workers' International
Association
1000 Connecticut Avenue, NW.
Washington, D.C. 20036

International Union, United
Automobile, Aerospace and
Agricultural Implement Workers of
America
8000 East Jefferson Avenue
Detroit, Mich. 48214

MACHINE
TRADES
OCCUPATIONS

gas-appliance serviceman; gas-appliance-serviceman helper

Usual Duties

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ce serviceman;
ce-serviceman helper

Usual Duties

The Gas-Appliance Serviceman installs and repairs gas meters, regulators, ranges, heaters, and refrigerators in customer's establishment. First, he drives a truck to transport spare parts, equipment, and appliances to the customer's establishment. Then, he measures, cuts, and threads pipe and connects it to the feeder line and equipment or appliance, using a rule, pipecutter, threader, and wrench. Next, he tests and examines pipelines and equipment to locate leaks and faulty pipe connections and to determine the pressure and flow of gas, using such instruments as manometers, voltmeters, and combustible gas indicators. Lastly, he dismantles meters and regulators and replaces defective pipes and parts, using handtools.

The Gas-Appliance-Serviceman Helper assists the Gas-Appliance Serviceman in installing and repairing gas meters, regulators, ranges, heaters, and refrigerators. He performs a number of tasks. Some of them are: transporting tools, parts, equipment, and appliances from truck to customer's establishment, using handtruck; dismantling meters and regulators; and replacing defective pipes and parts, using handtools.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Gas-Appliance Serviceman, you must complete from 6 to 12 months of classroom and on-the-job training. To qualify as a trainee for this job, you usually must have a high school education or its equivalent. Courses in mathematics and physics will be very useful to you.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to work in narrow spaces and in cramped positions and to work rapidly and accurately with your hands and fingers when using handtools. You must have good eyesight with normal color vision to install and repair color-coded wires in gas appliances according to specifications.

You must be friendly, neat, and courteous in order to get along well with customers.

Employment Prospects

There will be many thousands of job openings for Gas-Appliance Servicemen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Gas-Appliance Servicemen to service and repair the ever-increasing number of coin-operated washing and drycleaning machines and household appliances. As a result, your chances of getting a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at independent service and repair shops in large cities.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportuniti

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Employment Prospects

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Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at independent service and repair shops in large cities.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Gas-Appliance Serviceman, you may advance to a job as foreman or service manager of a large repair shop or service center. You may also go into business for yourself by opening your own appliance sales, service, or repair shop.

As a helper, you can, if you wish, advance to a skilled Gas-Appliance Serviceman by having the required education and then asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local independent gas-appliance repair shop, service company, or utility company, department store that sells and services gas appliances, or manufacturer or dealer of gas appliances. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

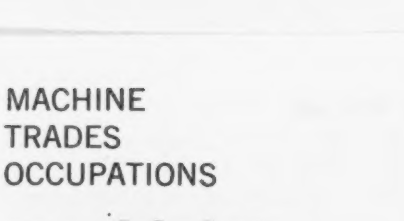
For more information on this kind of work, write to:

Institute of Appliance Manufacturers
2000 K Street, NW.
Suite 455
Washington, D.C. 20006

American Home Laundry Manufacturers' Association
364 Merchandise Mart
Chicago, Ill. 60654

MACHINE
TRADES
OCCUPATIONS

machinist; machinist apprentice



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Usual Duties

The Machinist sets up and operates many kinds of metalworking machines to make and repair metal parts, tools, and machines. First, he studies blueprints, sketches, or other specifications to obtain information on the device to be made or repaired. Then he lays out the metal stock to indicate where and how much machining is needed, using rules, squares, templates, scribers, and other similar instruments. He puts the mental stock or workpiece and the cutting tools into holding devices of such machines as drill presses, lathes, milling machines, and grinders, and adjusts the workpiece and the cutting tools into their correct positions. He moves controls on the machine to set the feed rate, cutting speed, and depth of cut. Then he starts the machine and observes its action, stopping it whenever necessary to regulate the position and action of the cutting tool. When the workpiece has been completely machined, he measures it for agreement with the specifications, using micrometers, gages, and other precision instruments. He then assembles the workpieces into a unit, using handtools.

The Machinist Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Machinist within a given time.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in a noisy atmosphere.

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Qualifications

To become a Machinist, you must either complete an apprenticeship program that consists of 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school education or its equivalent. Courses in mathematics, physics, drafting, and shopwork in vocational school will be very useful to you. You may be required to take tests to determine your aptitude for the work.

You must be physically able to stand for long periods of time and to work rapidly and accurately with your hands and fingers when using handtools and marking instruments. You must have good eyesight to read scales on precision-measuring instruments.

Employment Prospects

There will be many thousands of job openings for Machinists during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Machinists to make and repair the increasing number of complex machinery, equipment, and tools. As a result, your chances of getting an apprenticeship are very good.

Jobs are found in many communities and in many establishments. Good chances for finding employment will be in machine and maintenance shops in industrial establishments located in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportuniti

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As an apprentice, you will
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Employment Prospects

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Jobs are found in many communities and in many establishments. Good chances for finding employment will be in machine and maintenance shops in industrial establishments located in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Machinist, you may advance to a job as foreman. With more training in design work, you may become a tool-and-die maker or an instrument maker. You may also go into business for yourself by opening your own machine shop.

As an apprentice, you will advance to a journeyman Machinist upon successful completion of 4 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local metal-working factory, independent machine shop, and some Federal Government installations, such as the Navy Yard. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

The National Machine Tool Builders Association
2139 Wisconsin Avenue, NW.
Washington, D.C. 20007

International Association of Machinists and Aerospace Workers
1300 Connecticut Avenue, NW.
Washington, D.C. 20036

MACHINE
TRADES
OCCUPATIONS

metal patternmaker; metal-patternmaker apprentice

maker;
maker apprentice

Usual Duties

The Metal Patternmaker fabricates metal patterns and core boxes for use in making molds in which metal castings are formed. He studies blueprints of the object to be cast to learn about its size, shape, and kind of material required. Then he computes the dimensions of the pattern to be made and plans the steps or operations needed to shape and reduce the metal stock to the required size and shape. Next, he measures, marks, and scribes the metal stock to indicate cutting and assembling lines and points and how much metal to remove. After preparing the metal stock, he sets up and operates machine tools, such as milling machines, lathes, drill presses, and grinders to cut and reduce the stock to the specifications. If necessary, he files, scrapes, or grinds the machined workpiece by hand to finish it. Very often he assembles machined parts into a whole pattern, using handtools. Lastly, but also during his other work, he measures the parts or pattern to make sure that it agrees with the blueprint specifications. In measuring the workpiece, he uses templates and other instruments such as scales, calipers, and micrometers.

The Metal-Patternmaker Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Metal Patternmaker within a given time.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors, usually in a dusty, noisy, dirty, and hot environment.

Qualifications

To become a Metal Patternmaker, you must either complete an apprenticeship program that consists of 5 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you generally must have at least a high school education. Courses in mathematics, drafting, and machine-shop work in a vocational school will be very useful to you. You may be required to take tests to determine your aptitude for the work.

You must be physically able to be on your feet (either standing or walking) for long periods of time; to stoop, crouch, and kneel frequently; and to work rapidly and accurately with your hands and fingers when using hand-tools and measuring instruments and when moving controls on machines. You must have good eyesight to make precise measurements of machined parts.

Employment Prospects

There will be a few thousand job openings for Metal Patternmakers during the next 10 years. These job openings will come about mostly because of the need to replace workers who will retire or leave their jobs for other reasons but also because of the need for more Metal Patternmakers to meet a slight increase in the use of metal patterns. As a result, your chances of getting an apprenticeship are only fair.

Good chances for finding employment will be in industrial foundries.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Oppo

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As an apprentice,
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Employment Prospects

There will be a few thousand job openings for Metal Patternmakers during the next 10 years. These job openings will come about mostly because of the need to replace workers who will retire or leave their jobs for other reasons but also because of the need for more Metal Patternmakers to meet a slight increase in the use of metal patterns. As a result, your chances of getting an apprenticeship are only fair.

Good chances for finding employment will be in industrial foundries.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Metal Patternmaker, you may advance to a foundry foreman. You may also easily transfer to other jobs, such as a machinist or a layout man in a machine shop.

As an apprentice, you will advance to a journeyman Metal Patternmaker upon successful completion of 5 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local foundry plant. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Foundry Educational Foundation
1138 Terminal Tower
Cleveland, Ohio 44113

National Foundry Association
9838 Roosevelt Road
P. O. Box 76
Westchester, Ill. 60156

MACHINE
TRADES
OCCUPATIONS

office-machine serviceman; office-machine-serviceman apprentice

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hine serviceman;
hine-serviceman

Usual Duties

The Office-Machine Serviceman repairs and services office machines, such as adding, accounting, and calculating machines, and typewriters. He first operates a defective machine to test its moving parts and to listen to its sounds to locate the cause of trouble. After locating the cause, he dismantles the machine and examines the parts for wear and defects, using micrometers. He then repairs, adjusts, or replaces the faulty parts, using handtools, power tools, and soldering and welding equipment. He also cleans and oils its moving parts.

The Office-Machine-Serviceman Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Office-Machine Serviceman within a given time.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings. Job may require you to be bonded.

Employer usually furnishes worktools.

Employer may require you to own or to have the use of a car.

Qualifications

To become an Office-Machine Serviceman, you must either complete an apprenticeship program that consists of 2 to 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training.

To qualify for an apprenticeship program, you usually must have a high school education. Courses in mathematics, physics, and drafting will be very useful to you. Usually you must be under 30 years of age. You may be required to take tests to determine your aptitude for the work.

You must be physically able to lift and carry heavy objects, such as a typewriter; to work in cramped places and in awkward positions; and to work rapidly and accurately with your hands and fingers when using handtools and work aids.

You must be neat, tactful, pleasant, and able to speak well in order to get along well with customers.

Employment Prospects

There will be many thousands of job openings for Office-Machine Servicemen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Office-Machine Servicemen to service and repair the rapidly increasing number of machines which do clerical work. As a result, your chances of getting an apprenticeship are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be with manufacturing firms that sell and service office or business machines and in local independent repair shops in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportu

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Employment Prospects

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Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be with manufacturing firms that sell and service office or business machines and in local independent repair shops in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Office-Machine Serviceman, you may advance to a foreman, a service manager, or to some other supervisory position. You may also go into business for yourself by opening your own repair shop.

As an apprentice, you will advance to a journeyman Office-Machine Serviceman upon successful completion of 2 to 4 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local manufacturing firm or branch store that sells and services office or business machines, independent repair shop, or large business that uses a great many office machines. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

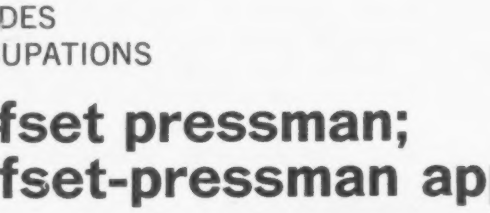
For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Business Machine and Office Appliance
Mechanics (I.U.E.)
International Headquarters
160 Fifth Avenue, Room 912
New York, N.Y. 10010

MACHINE
TRADES
OCCUPATIONS

offset pressman; offset-pressman apprentice



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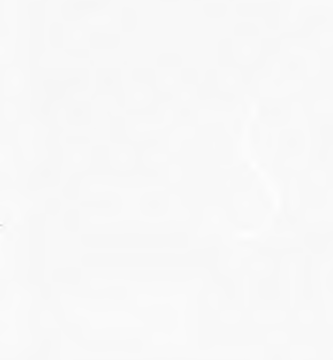

Usual Duties

The Offset Pressman operates an offset printing press to print single and multicolor copy from lithographic plates. First, he studies the job order to determine the operating time, the quantity to be printed, and stock specifications. Then he washes a plate to remove the protective gum coating and builds up the back of the plate with sheets of folio to raise the plate to printing level. He then installs the plate with backing on the plate cylinder and locks it in position in the press, using handtools. Following this, he applies folio to the blanket cylinder to build it up to the diameter of the plate cylinder and fills the ink fountains in the press. Next, he adjusts the space between the blanket and impression cylinders according to the thickness of paper stock. He adjusts the controls to regulate moisture delivery to the plate cylinder and then starts the press to run off a proof copy. He examines the proof copy and adjusts the press controls to obtain the specific color registration desired. He then starts the press and completes the production run.

The Offset-Pressman Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Offset Pressman within a given time.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available.

Work is performed indoors in pleasant surroundings, although it may be noisy if several presses are in operation at the same time.

Qualifications

To become an Offset Pressman, you must either complete an apprenticeship program that consists of 4 or 5 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you must have a high school education. Courses in photography, mathematics, chemistry, physics, and art will be very useful to you. You must be at least 18 years of age. You must take tests to determine your aptitude for the work.

You must be physically able to stand for long periods of time. You must be able to work rapidly and accurately with your hands and fingers when using handtools. You must have good eyesight with normal color vision to obtain the specific color registration desired on the proof copy.

Employment Prospects

There will be many thousands of job openings for Offset Pressmen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Offset Pressmen to meet the needs of the increasing use of color matter in printed publications. As a result, your chances of getting an apprenticeship are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at newspapers and commercial printing plants in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

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Employment Prospects

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Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at newspapers and commercial printing plants in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Offset Pressman, you may advance to foreman of the lithographic department of a newspaper or commercial printing plant. You may also go into business for yourself by opening your own commercial printing shop.

As an apprentice, you will advance to a journeyman Offset Pressman upon successful completion of 4 or 5 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local newspaper or commercial printing plant. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Lithographers and Photoengravers
International Union
233 West 49th Street
New York, N.Y. 10019

International Printing Pressmen and
Assistants' Union of North America
Pressmen's Home, Tenn. 37850

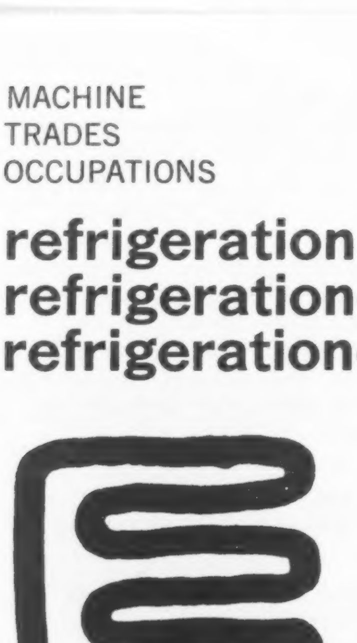
Graphic Arts Technical Foundation
4615 Forbes Avenue
Pittsburgh, Pa. 15213

National Association of Photo-
Lithographers
230 West 41st Street
New York, N.Y. 10036

Printing Industries of America, Inc.
20 Chevy Chase Circle, NW.
Washington, D.C. 20015

MACHINE
TRADES
OCCUPATIONS

refrigeration mechanic; refrigeration-mechanic apprentice; refrigeration-mechanic helper



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unbolting pa
keeping too
supplies in

mechanic;
-mechanic apprentice;
-mechanic helper

Usual Duties

The Refrigeration Mechanic installs and repairs large refrigerating and cooling systems according to blueprints and other specifications. First, he lays out and marks reference points for installation of structural and functional components, using such instruments as tapes, transits, plumb bobs, and squares. Then he drills holes and installs mounting brackets and hangers into floors and walls of building. He then assembles structural and functional parts, such as motors, switches, pumps, and condensers by screwing, bolting, riveting, welding, and brazing. Then, he cuts, threads, and connects pipe to functional components and water or power system. He pumps gas or fluid into the system, starts it, observes the operation, reads gages and instruments, and adjusts valves and other controls to maintain the levels of fluid, pressure. and temperature in the system. He dismantles malfunctioning systems and tests components, using electrical, mechanical, and pneumatic (air pressure) testing equipment, and replaces or adjusts defective or worn parts.

The Refrigeration-Mechanic Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Refrigeration Mechanic within a given time.

The Refrigeration-Mechanic Helper assists the Refrigeration Mechanic in installing and repairing large refrigerating and cooling systems. He performs a number of tasks. Some of them are: transporting tools, materials, and components; bolting and unbolting parts, using handtools; and keeping tools, equipment, and supplies in good order.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule requires evenings, nights, holidays, and weekends during summer months. Overtime is usually available.

Work is performed indoors and often involves handling dirty and greasy objects.

Qualifications

To become a Refrigeration Mechanic, you must either complete an apprenticeship program that consists of 5 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school or trade school education. Courses in mathematics, physics, and blueprint reading will be very useful to you. You must be between 16 and 25 years of age. You must take tests to determine your aptitude for the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to lift and move heavy equipment and be able to work in cramped positions. You must be able to work rapidly and accurately with your hands and fingers when using handtools. You must have good eyesight to repair refrigeration equipment according to blueprints and other specifications.

Employment Prospects

There will be many thousands of job openings for Refrigeration Mechanics during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Refrigeration Mechanics to install and repair the rapidly increasing number of refrigeration and air-conditioning systems. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at large commercial and industrial construction companies in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Refrige
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as foreman of a refrigerati
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Advancement Opportunities

As an experienced Refrigeration Mechanic, you may advance to a job as foreman of a refrigeration contracting company. You may also easily transfer from one industry to another, or go into business for yourself by opening your own refrigeration contracting company. With further training in refrigeration design and construction, you may advance to a refrigeration technician.

As an apprentice, you will advance to a journeyman Refrigeration Mechanic upon successful completion of 5 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Refrigeration Mechanic by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local refrigeration dealer or contractor. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

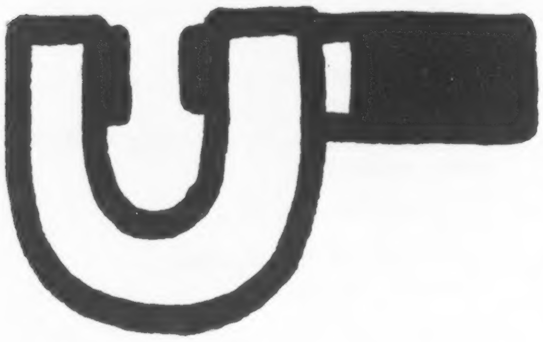
For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Refrigeration Service Engineers
Society
433 North Waller Avenue
Chicago, Ill. 60644

MACHINE
TRADES
OCCUPATIONS

tool-and-die maker; tool-and-die-maker apprentice



Usual Duties

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maker;
-maker apprentice

Usual Duties

The Tool-and-Die Maker makes metal working dies, cutting tools, jigs, fixtures, and gates. He studies blueprints and other specifications of the object to be made to learn about its size, shape, and the kind of materials required. Then, he lays out the metal stock to indicate where and how much machining is needed. In doing layout work, he uses scribes, squares, pencils, chalk, and other marking and measuring devices. Next, he sets up and operates machine tools, such as lathes, milling machines, shapers, and grinders, to machine the metal stock to the required size and shape. After machining the part, he measures it to make sure that it agrees with the specifications. When measuring the part, he uses micrometers, dial indicators, thickness gages, and other instruments. Often he scrapes and grinds the machined part to finish it, using handtools. He also assembles parts into units, using handtools and connecting devices, such as bolts and dowel pins.

The Tool-and-Die Maker Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Tool-and-Die Maker within a given time.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available.

Work is performed indoors in pleasant surroundings.

Qualifications

To become a Tool-and-Die Maker, you must either complete an apprenticeship program that consists of 4 to 5 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school education. Courses in mathematics, physics, and blueprint reading will be very useful to you. You may be required to take tests to determine your aptitude for the work.

You must be physically able to stand for long periods of time and to work rapidly and accurately with your hands and fingers when using handtools and work aids. You must have good eyesight to use measuring devices according to specifications.

Employment Prospects

There will be about 63,000 job openings for Tool-and-Die Makers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Tool-and-Die Makers to meet the expected increase in the use of machined products and tools. As a result, your chances of getting an apprenticeship are good.

Jobs are found in many communities and in many establishments. Good chances for finding employment will be at machine shops in large cities.

Preapprenticeship training for this kind of work may be available through your local state Employment Service office under the Manpower Development and Training Act.

Advancement Opportuniti

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Advancement Opportunities

As an experienced Tool-and-Die Maker, you may advance to a job as foreman or supervisor for a machinery or metalworking firm. You may also easily transfer to other industries, such as aircraft manufacturing or ship and boat building and repairing. You may go into business for yourself by opening your own tool-and-die shop.

As an apprentice, you will advance to a journeyman Tool-and-Die Maker upon successful completion of 4 to 5 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local automobile, aircraft, other transportation equipment manufacturing company, machine shop, or tool-and-die making firm. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

International Association of Machinists
and Aerospace Workers
1300 Connecticut Avenue, NW.
Washington, D.C. 20036

International Union, United Automobile,
Aerospace and Agricultural Implement Workers of America
8000 East Jefferson Avenue
Detroit, Mich. 48214

International Union of Electrical Radio
and Machine Workers
1126 16th Street, NW.
Washington, D.C. 20036

MACHINE
TRADES
OCCUPATIONS

wood patternmaker; wood-patternmaker apprentice

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Usual Duties

The Wood Patternmaker makes wooden patterns for use in making molds in which metal castings are formed. He studies blueprints of the object to be cast to learn about its size, shape, and kind of materials required. Then he lays out the woodstock to indicate where and how much machining is needed, using a scriber, shrink rule, square, and other marking and measuring devices. Next, he sets up and operates woodworking machines, such as bandsaws, planers, lathes, and routers, to machine the stock to the required size and shape. Then, he measures the part to make sure that it agrees with the specifications, using templates, straightedges, protractors, and other measuring instruments. He may trim, smooth, and shape the surface of the part to finish it, using planes, drawknives, chisels, and mallets. He also assembles parts into a complete pattern, using handtools and screws, nails, dowels, and glue.

The Wood-Patternmaker Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Wood Patternmaker within a given time.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors, usually in a dusty, noisy, dirty, and hot environment.

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Qualifications

To become a Wood Patternmaker, you must either complete an apprenticeship program that consists of 5 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have at least a high school education. Courses in mathematics, drafting, and woodwork in a vocational school will be very useful to you. You may be required to take tests to determine your aptitude for the work.

You must be physically able to be on your feet (either standing or walking) for long periods of time; to stoop, crouch, and kneel frequently; and to work rapidly and accurately with your hands and fingers when using handtools and measuring instruments and when moving controls on machines. You must have good eyesight to make precise measurements of machined parts.

Employment Prospects

There will be a few thousand job openings for Wood Patternmakers during the next 10 years. These job openings will come about mostly because of the need to replace workers who will retire or leave their jobs for other reasons but also because of the need for more Wood Patternmakers to meet a slight increase in the use of wood patterns. As a result, your chances of getting an apprenticeship are only fair.

Good chances for finding employment will be in industrial foundries.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportu

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Employment Prospects

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Good chances for finding employment will be in industrial foundries.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Wood Patternmaker, you may advance to a job as foundry foreman. You may also easily transfer to other jobs, such as a cabinetmaker.

As an apprentice, you will advance to a journeyman Wood Patternmaker upon successful completion of 5 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local foundry plant. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers.

For more information on apprentice jobs, see page 20.

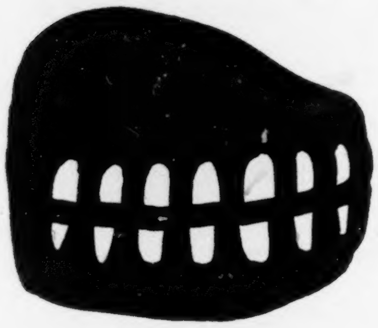
For more information on this kind of work, write to:

Foundry Educational Foundation
1138 Terminal Tower
Cleveland, Ohio 44113

National Foundry Association
9838 Roosevelt Road
P. O. Box 76
Westchester, Ill. 60156

BENCH
WORK
OCCUPATIONS

dental-laboratory technician; dental-laboratory-technician apprentice



boratory technician; boratory-technician ce

Usual Duties

The Dental-Laboratory Technician constructs and repairs dental appliances, according to dentist's prescription. He fabricates full and partial dentures, using wax and plaster models, surveyors, tooth-color scales, articulators, and electric grinders and polishers. He also constructs crowns, inlays, and wire frames by forming (bending and soldering) gold and platinum wire or by casting in mold in a centrifugal casting furnace. He constructs porcelain teeth from the impression made by the dentist, using powdered porcelain and water, electric furnaces, grinding wheels, and tooth-color scales. Then, he polishes the metal and plastic portions of the completed appliance with electric grinders and polishers. Finally, he tests the completed product to make sure it conforms to specifications, using a articulator (a device that moves like a jaw).

The Dental-Laboratory-Technician Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Dental-Laboratory Technician within a given time.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Dental-Laboratory Technician, you must either complete an apprenticeship program that consists of 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you must have a high school education or its equivalent. Courses in art, ceramics, sculpture, metalworking, plastics, physiology, and blueprint reading will be very useful to you. You must be at least 16 years of age. You must take tests to determine your aptitude for the work.

You must be able to work rapidly and accurately with your hands and fingers when using handtools to make and assemble the parts used to build dental appliances according to the dentist's prescription. You must have good eyesight with normal color vision to properly mix the powdered porcelain and water solution to obtain the desired color and shade to match the patients' natural teeth.

Employment Prospects

There will be about 17,000 job openings for Dental-Laboratory Technicians during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Dental-Laboratory Technicians to meet the needs of the rapidly increasing volume of business by commercial laboratory firms. As a result, your chances of getting an apprenticeship are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at commercial dental laboratories in large cities and in U.S. Veterans Administration hospitals throughout the country.

This kind of work is available to both men and women.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

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Advancement Opportunities

As an experienced Dental-Labortory Technician, you may advance to a job as foreman in a large commercial dental laboratory. You may also go into business for yourself by opening your own dental laboratory.

As an apprentice, you will advance to a journeyman Dental-Laboratory Technician upon successful completion of 4 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local commercial dental laboratory, hospital, dentist's office, and U.S. Veterans Administration hospital. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

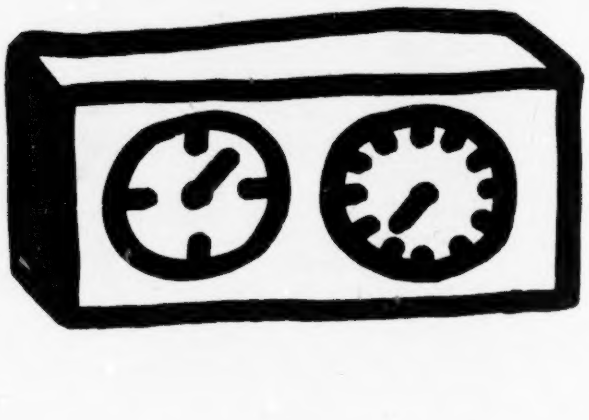
National Association of Dental
Laboratories, Inc.
500 Walker Building
Washington, D.C. 20005

American Dental Association
Council on Dental Education
222 East Superior Street
Chicago, Ill. 60611

For more information about employment in dental laboratories in Veterans Administration hospitals, write to the nearest, or any, Veterans Administration hospital anywhere in the country.

BENCH
WORK
OCCUPATIONS

instrument repairman; instrument-repairman apprentic instrument-repairman helper



repairman;
-repairman apprentice;
-repairman helper

Usual Duties

The Instrument Repairman repairs and maintains industrial and scientific instruments that measure, record, or control heat, electricity, pressure, flow of liquids, and other variables. He disassembles faulty instruments, using handtools. Then he examines and tests the mechanisms and circuitry for defects, using pressure and vacuum gages, voltmeters, ammeters, and other testing and measuring instruments. After finding the defect or cause of the trouble, he repairs or replaces worn or damaged parts, using handtools and bench tools. He then reinstalls the instruments. In maintaining the instruments, he cleans, lubricates, and makes minor adjustments to them at regular intervals.

The Instrument-Repairman Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Instrument Repairman within a given time.

The Instrument-Repairman Helper assists the Instrument Repairman in repairing and maintaining industrial and scientific instruments. He performs a number of tasks. Some of them are: collecting and changing charts on recording instruments; drilling holes in structures for installation of instruments; and carrying tools and materials.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends.

Worker may be required to be on call at any time in case of emergency. Work is performed indoors and outdoors.

Qualifications

To become an Instrument Repairman, you must either complete an apprenticeship program that consists of 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school education. Courses in mathematics, physics, chemistry, blueprint reading, and electricity will be very useful to you. You may be required to take tests to determine your aptitude for the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be able to work rapidly and accurately with your hands and fingers when using handtools and handling delicate instruments and parts. You must have good eyesight with normal color vision to work with tiny parts and color-coded wires.

Employment Prospects

There will be about 45,000 job openings for Instrument Repairmen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Instrument Repairmen to repair and maintain the ever-increasing number of instruments being used in manufacturing and other industries, and in research and developmental work. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at manufacturing firms in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Oppo

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Employment Prospects

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Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at manufacturing firms in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Instrument Repairman, you may advance to a job as group leader or foreman, or to a position as a service representative of an instrument manufacturing company.

As an apprentice, you will advance to a journeyman Instrument Repairman upon successful completion of 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Instrument Repairman by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local manufacturing plant that makes instruments; industrial establishment that uses instruments, such as a gas or electric utility company or a petroleum or chemical plant; and some Federal agencies, such as the Air Force, Army, and Navy. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

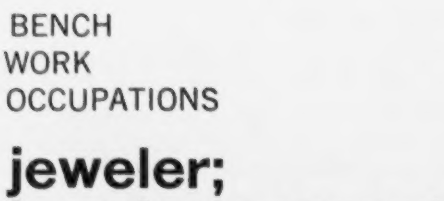
For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Instrument Society of America
530 William Penn Place
Pittsburgh, Pa. 15200

BENCH
WORK
OCCUPATIONS

jeweler; jeweler apprentice



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Usual Duties

The Jeweler makes and repairs jewelry articles, such as rings, brooches, bracelets, and necklaces. He makes these articles with metalworking tools by hand, by casting them in a machine mold, or by stamping them out with a machine. In making articles by hand and with machine tools, he performs such operations as laying out, shaping, engraving, and electroplating the metal stock. Then he polishes the formed parts and solders them together. He mounts jewels or stones or makes other decorations on the article. He uses many kinds of handtools and machine tools, such as jewelers' lathes, soldering irons, polishing machines, saws, files, and carving and chasing tools.

In making articles by casting them, he first makes a metal model of the article, and from this model makes a rubber mold. He then injects, under pressure, wax or plastic into the mold to produce a pattern. He places the pattern in a plaster-like material, burns out a cavity, and then forms the article, using a casting machine.

In making articles by stamping them out, he places the metal piece onto the bed of a stamping machine. Then he operates the stamping machine to bring a die down into the metal piece to form the article.

The Jeweler Apprentice (See Apprentice —General Comments) learns to perform all the tasks of the Jeweler within a given time.

Characteristics of Job

Work in jewelry manufacturing plants is usually seasonal. The workweek varies from 35 to 48 hours. Work is performed indoors in pleasant surroundings.

Job requires you to be bonded. Employer usually requires workers to have, or to acquire, their own handtools.

Qualifications

To become a Jeweler, you must either complete an apprenticeship program that consists of 3 or 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you generally must have a high school education. Courses in chemistry, physics, mechanical drawing, and art will be very useful to you. You may be required to take tests to determine your aptitude for the work.

You must be able to work rapidly and accurately with your hands and fingers when using handtools. You must have good eyesight with normal color vision to make precise measurements of minute parts and to match or blend colored stones or jewels. You must also have creative imagination for design work.

You must be courteous and tactful in order to deal with customers.

Employment Prospects

There will be about 7,000 job openings for Jewelers during the next 10 years. These job openings will come about mostly because of the need to replace workers who will retire or leave their jobs for other reasons. There will be few, if any, new workers hired as Jewelers during the next several years. As a result, your chances of getting an apprenticeship are not very good.

Good chances for finding employment will be at jewelry manufacturing plants in large cities.

This kind of work is available to both men and women.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Jeweler, y advance to a shop foreman i manufacturing plant or to a manager or to the head of department in a retail store. may also go into business f by opening your own retail store or repair shop.

As an apprentice, you will a a journeyman Jeweler upon completion of 3 or 4 years related classroom instructio on-the-job training.

Employment Prospects

There will be about 7,000 job openings for Jewelers during the next 10 years. These job openings will come about mostly because of the need to replace workers who will retire or leave their jobs for other reasons. There will be few, if any, new workers hired as Jewelers during the next several years. As a result, your chances of getting an apprenticeship are not very good.

Good chances for finding employment will be at jewelry manufacturing plants in large cities.

This kind of work is available to both men and women.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Jeweler, you may advance to a shop foreman in a manufacturing plant or to a store manager or to the head of a sales department in a retail store. You may also go into business for yourself by opening your own retail jewelry store or repair shop.

As an apprentice, you will advance to a journeyman Jeweler upon successful completion of 3 or 4 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local retail jewelry store, jewelry manufacturing establishment, and wholesale establishment or trade shop that specializes in jewelry repairs for retail stores. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Retail Jewelers of America, Inc.
711 14th Street, NW.
Washington, D.C. 20005

Manufacturing Jewelers and Silversmiths of America, Inc.

Sheraton Biltmore Hotel, Room S-75
Providence, R.I. 02902

International Jewelry Workers' Union, Local No. 1
133 West 44th Street
New York, N.Y. 10036

BENCH
WORK
OCCUPATIONS

radio-and-television repairman; radio-and-television-repairman apprentice

Usual Duties

The Radio-and-Television Rep
repairs radio and television rec
in homes, workshops, and othe
When repairing a television r
he tunes the receiver on all ch
and observes audio and vide
characteristics to determine t
of the trouble. He also tests
tubes and examines the chass
loose or broken connections.
addition, he tests the voltages
resistances of the circuits to
a defect, following a schemati
diagram and using a voltmeter
generator, oscilloscope, or so
other electronic testing instru
After finding the cause of the
he repairs or replaces the defe
parts or connections, using ha
and a soldering iron. In repai
radios, phonographs, recorders
other similar audio equipment
he tests the wiring, tubes, res
and other parts of the faulty de
When testing these devices, h
voltmeters, oscilloscopes, and
electronic testing instruments
locate the trouble. Then he re
replaces defective parts or con
tions, using handtools and a so
iron.

The Radio-and-Television Repai
Apprentice (See Apprentice—
Comments) learns to perform a
tasks of the Radio-and-Televisi
Repairman within a given time

television repairman; television-apprentice

Usual Duties

The Radio-and-Television Repairman repairs radio and television receivers in homes, workshops, and other places. When repairing a television receiver, he tunes the receiver on all channels and observes audio and video characteristics to determine the cause of the trouble. He also tests the tubes and examines the chassis for loose or broken connections. In addition, he tests the voltages and resistances of the circuits to isolate a defect, following a schematic diagram and using a voltmeter, signal generator, oscilloscope, or some other electronic testing instrument. After finding the cause of the trouble, he repairs or replaces the defective parts or connections, using handtools and a soldering iron. In repairing radios, phonographs, recorders, and other similar audio equipment, he tests the wiring, tubes, resistors, and other parts of the faulty device. When testing these devices, he uses voltmeters, oscilloscopes, and other electronic testing instruments to locate the trouble. Then he repairs or replaces defective parts or connections, using handtools and a soldering iron.

The Radio-and-Television Repairman Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Radio-and-Television Repairman within a given time.

Characteristics of Job

Work is steady throughout the year, usually with a 5- or 6-day, 40- to 48-hour workweek. Overtime is usually available. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Radio-and-Television Repairman, you must either complete an apprenticeship program that consists of 2 or 3 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school education. Courses in mathematics, physics, electronics, English, and drafting will be very useful to you. You may be required to take tests to determine your aptitude for the work. In a number of States and cities you must have a license. To obtain this license you must pass an examination that is designed to test your skill in the use of testing equipment and your knowledge of electronic circuits and components.

You must be physically able to lift and carry television sets occasionally; to stoop, crouch, and kneel frequently; and to work rapidly and accurately with your hands and fingers when using handtools and wiring circuits. You must have good eyesight with normal color vision to repair color television sets and connect color-coded wires.

You must be courteous, tactful, and able to speak clearly in order to deal successfully with customers.

Employment Prospects

There will be about 46,000 job openings for Radio-and-Television Repairmen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Radio-and-Television Repairmen to meet the rapid growth in the number of radios, television receivers, and phonographs. As a result, your chances of getting an apprenticeship are very good.

Jobs are found in almost all communities and in many establishments. Good chances for finding employment will be with independent service shops or stores that sell and service television, radio, and other similar electronic products in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

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Employment Prospects

There will be about 46,000 job openings for Radio-and-Television Repairmen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Radio-and-Television Repairmen to meet the rapid growth in the number of radios, television receivers, and phonographs. As a result, your chances of getting an apprenticeship are very good.

Jobs are found in almost all communities and in many establishments. Good chances for finding employment will be with independent service shops or stores that sell and service television, radio, and other similar electronic products in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Radio-and-Television Repairman, you may advance to an assistant foreman, to a foreman, and then to a service manager in a large shop or service center. You may also go into business for yourself by opening your own repair shop or sales and service shop. With further training in electronics you may advance to an electronics technician, who repairs such electronic equipment as computers, radar systems, and industrial controls.

As an apprentice, you will advance to a journeyman Radio-and-Television Repairman upon successful completion of 2 or 3 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local store that sells and services radios and television receivers, independent repair shop, some government agencies, or a manufacturing firm that runs its own branch stores. Register at your local State Employment Service office. Ask your high school counselor or trade school instructor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write or visit any manufacturer of radio and television equipment, local dealer, technical school (either private or public), or local service center.

STRUCTURAL
WORK
OCCUPATIONS

automobile-body repairman; automobile-body-repairman apprentice; automobile-body-repairman helper

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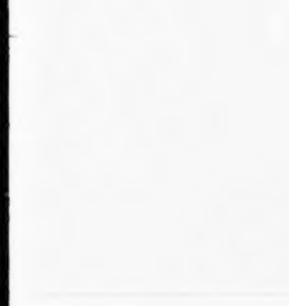
-body repairman; -body- apprentice; -body- helper



Usual Duties

The Automobile-Body Repairman repairs damaged bodies and body parts of automobiles and light trucks. When repairing body parts, he first removes the body hardware, window-operating equipment, and trim in order to get at the damaged area. In reshaping the metal, he pushes large dents out with a hydraulic jack or hand prying bar, or "bumps" them out with a handtool or pneumatic hammer, and smoothes small dents and creases by holding a small hand anvil against one side of the damaged area and hammering the opposite side. He removes very small pits and dimples from the metal with pick hammers and punches. He removes badly damaged sections with a pneumatic metal-cutting gun or acetylene torch, and welds in new sections. He mends tears in the metal by welding the torn edges; and uses solder and plastic materials to fill small dents that he cannot work out of the metal. He sands the repaired surface and paints it.

The Automobile-Body-Repairman Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Automobile-Body Repairman within a given time.

The Automobile-Body-Repairman Helper assists the Automobile-Body Repairman in repairing damaged bodies and body parts of automotive vehicles. He performs a number of tasks. Some of them are: removing damaged parts and installing repaired parts, using handtools; sanding repaired surfaces to prepare them for painting; and removing small dents.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include Saturday. Overtime is usually available. Work is performed indoors in a dusty and noisy atmosphere and often involves handling dirty and greasy objects and smelling paint odors.

Employer usually requires workers to have, or to acquire, their own handtools. Some employers furnish work uniforms.

Qualifications

To become an Automobile-Body Repairman, you must either complete an apprenticeship program that consists of 3 or 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you generally must have a high school education. Courses in arithmetic and automobile-body repair in vocational school will be very useful to you.

You may be required to take tests to determine your aptitude for the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to work in cramped places and in awkward positions and to work rapidly and accurately with your hands and fingers when using handtools and power tools. You must have good eyesight with normal color vision to match shades of paint.

Employment Prospects

There will be about 37,000 job openings for Automobile-Body Repairmen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Automobile-Body Repairmen to do repair work to an ever-increasing number of motor vehicles. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at independent automobile-body repair shops and the service department of automobile and truck dealers in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Op

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Repairman, you
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Employment Prospects

There will be about 37,000 job openings for Automobile-Body Repairmen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Automobile-Body Repairmen to do repair work to an ever-increasing number of motor vehicles. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at independent automobile-body repair shops and the service department of automobile and truck dealers in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Automobile-Body Repairman, you may advance to a job as shop foreman. You may also go into business for yourself by opening your own repair shop.

As an apprentice, you will advance to a journeyman Automobile-Body Repairman upon successful completion of 3 to 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Automobile-Body Repairman by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local independent repair shop, new or used car or truck dealer, taxicab or automobile leasing company, garage or establishment where a fleet of vehicles is maintained, and at some department stores. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Automotive Service Industry Association
168 North Michigan Avenue
Chicago, Ill. 60601

Independent Garage Owners of
America, Inc.
343 South Dearborn Street
Chicago, Ill. 60604

STRUCTURAL
WORK
OCCUPATIONS

carpenter; carpenter apprentice; carpenter helper

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Usual Duties

The Carpenter constructs, erects, and repairs many kinds of wooden structures and structural members. When, for instance, he builds a house, he studies blueprints, sketches, or building plans to determine the kinds and grades of lumber or other material required and the size of the structure or part to be made. Then he measures and marks cutting and assembling lines on the stock, using rules, framing squares, calipers, chalk, and a marking gage. Next, he cuts and shapes the stock, using saws, chisels, and planes. He then puts the parts together with nails, dowel pins, glue, and other connecting devices and materials. Then he sets up the framework and other structural parts, such as the rafters, stairs, and partitions. He also lays hardwood, parquet, and other types of floors. Lastly, he installs prefabricated parts, such as window and door frames, doors, and finish hardware, such as locks and letter drops.

The Carpenter Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Carpenter within a given time.

The Carpenter Helper assists the Carpenter in constructing, erecting, and repairing wooden structures. He performs a number of tasks. Some of them are: sawing lumber to specified size, using hand and power saws; carrying materials and tools; and digging holes and trenches for foundations.

Characteristics of Job

Except in bad weather, work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed both indoors and outdoors.

Employers usually require workers to have, or to acquire, their own handtools.

Qualifications

To become a Carpenter, you must either complete an apprenticeship program that consists of 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training.

To qualify for an apprenticeship program, you usually must have a high school education and be at least 17 years of age. Courses in drafting, mathematics, and woodworking will be very useful to you. You may be required to take tests to determine your aptitude for the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to work in cramped places and in awkward positions, to stand for long periods of time, to climb ladders, and to balance yourself on ladders and scaffolds. You must also be able to work rapidly and accurately with your hands when using tools and measuring and marking instruments.

Employment Prospects

There will be about 320,000 job openings for Carpenters during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Carpenters to meet the demands for more houses, factories, office buildings, and other structures. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many industries. Good chances of finding employment will be with construction firms in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportu

As an experienced Ca
may advance to a jo
foreman or general c
foreman. You may als
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Employment Prospects

There will be about 320,000 job openings for Carpenters during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Carpenters to meet the demands for more houses, factories, office buildings, and other structures. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many industries. Good chances of finding employment will be with construction firms in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Carpenter, you may advance to a job as carpenter foreman or general construction foreman. You may also easily transfer to other industries, such as mining and shipbuilding, or go into business for yourself by opening your own repair shop or contracting firm.

As an apprentice, you will advance to a journeyman Carpenter upon successful completion of 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Carpenter by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local construction company, independent repair shop or contracting firm, or government agency or business establishment that regularly requires maintenance of wooden structures. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

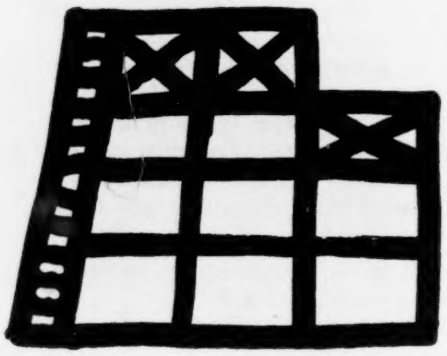
For more information on this kind of work, write to:

Associated General Contractors of America, Inc.
1957 E Street, NW.
Washington, D.C. 20006

United Brotherhood of Carpenters and Joiners of America
101 Constitution Avenue, NW.
Washington, D.C. 20001

STRUCTURAL
WORK
OCCUPATIONS

construction worker



Usual Duties

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worker

Usual Duties

The Construction Worker performs a variety of duties involving little or no independent judgment. His duties are determined by the type of construction job he is involved with. He may assist an experienced construction worker such as a journeyman in a specific trade or he may be a member of a work crew performing a number of duties under instructions of an experienced group leader or foreman. Some typical duties he may perform are: digging ditches for foundations, using a pick and shovel; loading, unloading, and moving materials onto and from trucks; moving materials between work areas; mixing, pouring, and spreading concrete, asphalt, gravel, and other materials, using handtools; and cleaning tools, equipment, and work areas during construction and after the work project has been completed.

Characteristics of Job

Work schedule is influenced by weather conditions, so you will usually work long days during the summer and may be laid off frequently during the winter. Overtime is paid for all time worked over 40 hours during a workweek. The rate of overtime pay is usually determined by union contract with the construction company. Work is performed outdoors.

Qualifications

As a beginning worker, you may be given a short demonstration of your job tasks. Educational requirements are not usually specified for this kind of work. Generally you must be at least 16 years of age.

You must be physically able to do strenuous work, such as using a pick and shovel, lifting and carrying heavy objects, and bending and stooping for long periods of time. You must be able to work rapidly and accurately with your hands and fingers when using handtools to perform such tasks as mixing, pouring, and spreading concrete, asphalt, and other materials.

Employment Prospects

There will be many job openings for Construction Workers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Construction Workers to meet the needs of expanding highway construction and the need for more houses, apartments, and schools due to expected rapid increase in population. As a result, your chances of getting a job are good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at large construction and contracting companies in large cities or wherever large construction projects are located.

As a student, you can usually obtain summer work at construction companies in almost any community.

Advancement Opportunities

As an experienced Construc
Worker, you may advance to
group leader or foreman fo
construction firm. You may
easily transfer to other indus
as manufacturing and transp

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ployment Prospects

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almost any community.

Advancement Opportunities

As an experienced Construction Worker, you may advance to a job as group leader or foreman for a construction firm. You may also easily transfer to other industries, such as manufacturing and transportation.

Finding the Job

Apply directly at the employment or personnel office of any local building or construction contracting company, State and city public works and highway department, or any public utility company. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on this kind of work, write to:

International Hod Carriers', Building
and Common Laborers' Union
of America
905 16th Street, NW.
Washington, D.C. 20006

STRUCTURAL
WORK
OCCUPATIONS

electrical-appliance serviceman; electrical-appliance-serviceman apprentice; electrical-appliance-serviceman helper

Usual Duties

The Electrical-Appliance S
services and repairs stove
tors, dishwashing machine
other electrical household
First, he observes readings
test meters as wattmeters
and voltmeters which he co
the plugged-in appliance, an
and listens to the applianc
the operating cycle to detec
vibration, overheating, fluid
and loose parts. Next, he d
the appliance and examine
mechanical and electrical
Then he traces and tests th
circuits to locate shorts an
following the wiring diagr
using an ohmmeter. He als
timers and thermostats and
the contact points. He rep
or defective parts and repair
adjusts the appliance moto
he reassembles the applian
the pulleys, and lubricates
parts, using handtools and
equipment.

The Electrical-Appliance-Se
Apprentice (See Apprentice
Comments) learns to perforn
the tasks of the Electrical-A
Serviceman within a given

The Electrical-Appliance-Ser
Helper assists the Electrica
Serviceman in servicing and
electrical household applian
He performs a number of tas
Some of them are: cleaning
washing disassembled part
unwrapping accessories, suc
shelves, drain pans, and dra
transporting the appliances,
handtruck.

pliance serviceman; pliance- apprentice; pliance- helper

Usual Duties

The Electrical-Appliance Serviceman services and repairs stoves, refrigerators, dishwashing machines, and other electrical household appliances. First, he observes readings on such test meters as wattmeters, ammeters, and voltmeters which he connects to the plugged-in appliance, and observes and listens to the appliance during the operating cycle to detect excess vibration, overheating, fluid leaks, and loose parts. Next, he disassembles the appliance and examines the mechanical and electrical parts. Then he traces and tests the electrical circuits to locate shorts and grounds, following the wiring diagram and using an ohmmeter. He also sets the timers and thermostats and adjusts the contact points. He replaces worn or defective parts and repairs and adjusts the appliance motor. Then, he reassembles the appliance, adjusts the pulleys, and lubricates all moving parts, using handtools and lubricating equipment.

The Electrical-Appliance-Serviceman Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Electrical-Appliance Serviceman within a given time.

The Electrical-Appliance-Serviceman Helper assists the Electrical-Appliance Serviceman in servicing and repairing electrical household appliances. He performs a number of tasks. Some of them are: cleaning and washing disassembled parts; unwrapping accessories, such as shelves, drain pans, and drawers; and transporting the appliances, using a handtruck.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available. Work is performed indoors in pleasant surroundings.

Qualifications

To become an Electrical-Appliance Serviceman, you must either complete an apprenticeship program that consists of 3 years of related classroom instruction and on-the-job training, or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school or vocational school education. Courses in electricity, mathematics, and physics will be very useful to you. You must take tests to determine your aptitude for the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important. You must be able to work rapidly and accurately with your hands and fingers when using handtools. You must have good eyesight with normal color vision to work with different colors of wires. You must have a good sense of hearing to detect unusual noise or vibration when testing some household electrical appliances, such as washing machines, refrigerators, or toasters.

You must be friendly and courteous in order to get along well with customers.

Employment Prospects

There will be many thousands of job openings for Electrical-Appliance Servicemen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Electrical-Appliance Servicemen to meet the needs of the expected increase in population and in the use of household appliances. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at appliance repair shops or service centers in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opport

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Serviceman, you ma
job as foreman or
a large repair shop
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Employment Prospects

There will be many thousands of job openings for Electrical-Appliance Servicemen during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Electrical-Appliance Servicemen to meet the needs of the expected increase in population and in the use of household appliances. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at appliance repair shops or service centers in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Electrical-Appliance Serviceman, you may advance to a job as foreman or service manager of a large repair shop or service center. You may also go into business for yourself by opening your own appliance sales, service, or repair shop.

As an apprentice, you will advance to a journeyman Electrical-Appliance Serviceman upon successful completion of 3 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman Electrical-Appliance Serviceman by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local electrical appliance repair shop, service center, or utility company. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Institute of Appliance Manufacturers
2000 K Street, NW.
Suite 455
Washington, D.C. 20006

American Home Laundry Manufacturers' Association
20 North Wacker Drive
Chicago, Ill. 60606

National Appliances and Radio-TV Dealers Association
364 Merchandise Mart
Chicago, Ill. 60654

STRUCTURAL
WORK
OCCUPATIONS

electrician; electrician apprentice; electrician helper

Usual Duties

The Electrician installs elec
fixtures, and control and di
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and structures. He studie
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The Electrician Helper assis
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Usual Duties

The Electrician installs electrical wiring, fixtures, and control and distribution equipment in many kinds of buildings and structures. He studies blueprints and other specifications to determine how he is going to lay out the electrical system. Then he draws sketches to show the locations of all the wiring, fixtures, and equipment. Next, he measures, cuts, threads, assembles, and puts conduits (pipes and tubes) in walls, ceilings, and other places, using such tools as hacksaws, pipe threaders, and benders. After the conduits are in place, he runs the wiring through them and attaches the wires to lighting fixtures and power equipment. Then he installs switches, relays, circuit-breaker panels, and other electrical devices to control and distribute the electricity. Next, he connects power cables to the equipment and sets up ground leads. Lastly, he tests the electrical system to make sure that everything is working right.

The Electrician Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Electrician within a given time.

The Electrician Helper assists the Electrician in installing electrical systems. He performs a number of tasks. Some of them are: drilling holes in walls; taking faulty equipment apart; and keeping tools, equipment, and supplies in good order.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Work time may be affected because of its seasonal nature. Overtime is usually available. Work is performed mostly indoors in pleasant surroundings.

Employer usually requires workers to have, or to acquire, their own handtools.

Qualifications

To become an Electrician, you must either complete an apprenticeship program that consists of 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training.

To qualify for an apprenticeship program, you must have a high school education. Courses in mathematics, physics, and drafting will be very useful to you. You usually must be between 18 and 24 years of age.

You may be required to take tests to determine your aptitude for the work. In most cities you are required to have an Electrician's license.

To obtain this license you must pass an examination that is given by the city in which you intend to work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to work in cramped places and in awkward positions, to stand for long periods of time, and to climb ladders and balance yourself while working. You must be able to work rapidly and accurately with your hands and fingers when using handtools and work aids. You must have good eyesight with normal color vision to work with color-coded wires.

Employment Prospects

There will be about 64,000 job openings for Electricians during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Electricians to install electrical systems in the expected large increase in the construction of homes, office buildings, apartment buildings, and other structures. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be with construction firms in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Electrician, yo
may advance to a job as foreman
superintendent, or an estimator
an electrical contractor. You may
easily transfer to other industries
such as shipbuilding and aircraft
manufacturing. You may also go
business for yourself by opening
your own electrical contracting

As an apprentice, you will advan
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successful completion of 4 years
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on-the-job training.

As a helper, you can, if you wish
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Employment Prospects

There will be about 64,000 job openings for Electricians during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Electricians to install electrical systems in the expected large increase in the construction of homes, office buildings, apartment buildings, and other structures. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be with construction firms in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Electrician, you may advance to a job as foreman, superintendent, or an estimator for an electrical contractor. You may also easily transfer to other industries, such as shipbuilding and aircraft manufacturing. You may also go into business for yourself by opening your own electrical contracting firm.

As an apprentice, you will advance to a journeyman Electrician upon successful completion of 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman Electrician by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local electrical contracting firm, electrical repair shop, or government agency that does its own electrical work. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

International Brotherhood of Electrical Workers
1200 15th Street, NW.
Washington, D.C. 20005

National Electrical Contractors Association
1220 18th Street, NW.
Washington, D.C. 20036

National Joint Apprenticeship and Training Committee for the Electrical Industry
1200 18th Street, NW.
Washington, D.C. 20036

STRUCTURAL
WORK
OCCUPATIONS

floor layer; floor-layer apprentice; floor-layer helper

Usual Duties

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Usual Duties

The Floor Layer applies blocks, strips, or sheets of shock-absorbing, sound-deadening, or decorative covering to floors, walls, and cabinets. First, he disconnects and removes such obstacles as radiators and light fixtures. Then, he cleans the surfaces and fills cracks with putty, plaster, or cement. He measures and cuts covering and foundation materials according to blueprints and sketches, using a rule, straightedge, linoleum knife, and snips. Next, he spreads adhesive cement over the floor and cements the foundation material to the floor. Then, he lays out centerlines, guidelines, and borderlines on the foundation and spreads cement on the foundation material with a trowel. After this, he lays the covering on the cement and butts the edges of blocks to match patterns and make the designs. Finally, he runs a floor roller over the finished floor to smooth it and to press the cement into the base and covering.

The Floor-Layer Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Floor Layer within a given time.

The Floor-Layer Helper assists the Floor Layer in applying covering to floors, walls, and cabinets. He performs a number of tasks. Some of them are: removing lumps by scraping with a putty knife or chisel; removing tile or other covering materials from boxes and keeping the Floor Layer supplied with materials; and cleaning work areas.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available. Work is performed indoors in pleasant surroundings.

Employer usually requires workers to have, or to acquire, their own handtools.

Qualifications

To become a Floor Layer, you must either complete an apprenticeship program that consists of 3 or 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you will be given preference if you have a high school or vocational school education, but this qualification is not always required. Courses in blueprint reading and mathematics of layout work will be very useful to you. You generally must be between 17 and 30 years of age. You may be required to take tests to determine your aptitude for the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to stand, bend, and kneel for long periods of time, to work in awkward positions, and to work rapidly and accurately with your hands and fingers when using handtools and laying covering materials. You must have good eyesight to measure, cut, and lay covering materials according to blueprints and other specifications.

Employment Prospects

There will be about 15,000 job openings for Floor Layers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Floor Layers due to the expected rapid increase in construction activities. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at floor covering contractors and commercial construction companies in large business centers, usually located in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

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As an apprentice, you will a
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As a helper, you can, if you
advance to a journeyman or
Floor Layer by having the
education and then applying
apprenticeship or asking you
for recognition as a trainee

Employment Prospects

There will be about 15,000 job openings for Floor Layers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Floor Layers due to the expected rapid increase in construction activities. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at floor covering contractors and commercial construction companies in large business centers, usually located in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Floor Layer, you may advance to a job as foreman, installation manager, or cost estimator for a large floor covering firm.

As an apprentice, you will advance to a journeyman Floor Layer upon successful completion of 3 or 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Floor Layer by having the required education and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local floor covering contractor or commercial construction company. Register at your local State Employment Service office. Ask your high school counselor or trade school instructor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

American Carpet Institute
Empire State Building
New York, N.Y. 10001

Armstrong Cork Company
Lancaster, Pa. 17600

Congoleum-Nairn, Inc.
195 Belgrove Drive
Kearny, N.J. 07032

STRUCTURAL
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OCCUPATIONS

operating engineer; operating-engineer apprentice

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Usual Duties

The Operating Engineer operates several types of power construction equipment to excavate and grade earth, erect structural and reinforcing steel, and pour concrete. These machines include compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrappers, bulldozers, concrete mixers, and motor graders. Workers are often identified by the type of machine they operate. For example, they may be known as Cranemen, Bulldozer Operators, or Derrick Operators. Their range of skills may vary widely because they work with many different types of machines.

The Operating-Engineer Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Operating Engineer within a given time.

Characteristics of Job

Work is steady during the warmer months and may include some slow periods during the colder months. Work schedule during good weather may include evenings, nights, holidays, and weekends. Overtime is usually available. Work is performed outdoors.

Qualifications

To become an Operating Engineer, you must either complete an apprenticeship program that consists of 3 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you must have a high school education or its equivalent. Courses in blueprint reading, electricity, and welding will be very useful to you. Generally, you must be between 18 and 25 years of age. You must take tests to determine your aptitude for the work.

You must be physically able to withstand the constant shaking and jolting caused by the machine you are operating and to work rapidly and accurately with your hands and fingers when using handtools and manipulating various pedals and levers. You must have good eyesight to operate machines to move earth, steel, or concrete according to specifications.

Employment Prospects

There will be about 160,000 job openings for Operating Engineers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the need for more Operating Engineers due to the increase in highway and other construction. As a result, your chances of getting an apprenticeship are very good.

Jobs are found in nearly all communities. Good chances for finding employment will be at contractors who are doing highway, dam, airport, or other large-scale engineering projects in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportuniti

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Employment Prospects

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Jobs are found in nearly all communities. Good chances for finding employment will be at contractors who are doing highway, dam, airport, or other large-scale engineering projects in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Operating Engineer, you may advance to a job as foreman of a construction or contracting firm. You also may transfer easily to other industries, such as mining, foundry, and iron and steel.

As an apprentice, you will advance to a journeyman Operating Engineer upon successful completion of 3 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local general contractor or construction firm. Register at your local State Employment Service office. Ask your high school counselor or trade school instructor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

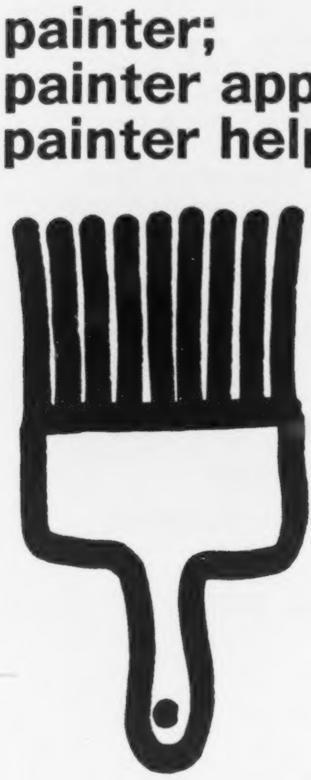
For more information on this kind of work, write to:

Associated General Contractors of America, Inc.
1957 E Street, NW.
Washington, D.C. 20006

International Union of Operating Engineers
1125 17th Street, NW.
Washington, D.C. 20036

STRUCTURAL
WORK
OCCUPATIONS

painter; painter apprentice; painter helper



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Usual Duties

The Painter applies coats of paint, varnish, stain, enamel, or lacquer to decorate and protect interior or exterior surfaces and trimmings of buildings and other structures. First, he cleans the surface of the area he is going to paint, smoothes it with sandpaper, and fills cracks and nail holes. Then he paints the surface by using a paint brush, spray gun, or roller. He also mixes and matches paints. When necessary, he erects scaffolding.

The Painter Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Painter within a given time.

The Painter Helper assists the Painter in preparing and applying protective and decorative coats of paint and related material to interior and exterior surfaces of buildings and structures. He performs a number of tasks. Some of them are: arranging and assembling scaffolding units; cleaning surfaces for painting; and cleaning brushes, equipment, and work areas.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work time may be affected by bad weather. Overtime is usually available. Work is performed both indoors and outdoors.

Some employers require you to furnish your own work uniforms. Employer usually requires workers to have, or to acquire, their own handtools.

Qualifications

To become a Painter, you must either complete an apprenticeship program that consists of 3 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school education. Courses in color harmony, paint chemistry, and cost estimating will be very useful to you. You must be between 16 and 25 years of age. You may be required to take tests to determine your aptitude for the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to stand for long periods of time, to balance yourself while working on ladders or scaffolding, and to work rapidly and accurately with your hands and fingers when using handtools, paintbrushes, and paint-spraying guns. You must have good eyesight with normal color vision to mix paints and match colors.

Employment Prospects

There will be about 190,000 job openings for Painters during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Painters due to the expected increase in the number of homes, office buildings, apartment buildings, and other structures. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at construction firms in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Painter, you ma advance to a job as foreman, superintendent, or cost estimator i painting and decorating contractin firm. You may also easily transfer other industries, such as shipbuilding or aircraft manufacturin You may also go into business for yourself by opening your own painting and decorating shop.

As an apprentice, you will advance a journeyman Painter upon successf completion of 3 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman Painter b having the required education, and then applying for an apprenticesh or asking your employer for recognit as a trainee.

Employment Prospects

There will be about 190,000 job openings for Painters during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Painters due to the expected increase in the number of homes, office buildings, apartment buildings, and other structures. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at construction firms in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Painter, you may advance to a job as foreman, superintendent, or cost estimator in a painting and decorating contracting firm. You may also easily transfer to other industries, such as shipbuilding or aircraft manufacturing. You may also go into business for yourself by opening your own painting and decorating shop.

As an apprentice, you will advance to a journeyman Painter upon successful completion of 3 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman Painter by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local painting and decorating contractor or construction company. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Brotherhood of Painters, Decorators,
and Paperhangers of America
217-219 North Sixth Street
Lafayette, Ind. 47901

Painting and Decorating Contractors
Association of America
2625 West Peterson Avenue
Chicago, Ill. 60605

STRUCTURAL
WORK
OCCUPATIONS

pipe fitter; pipe-fitter apprentice; pipe-fitter helper

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Usual Duties

The Pipe Fitter assembles, installs, and maintains piping systems and equipment in homes, commercial buildings, and industrial establishments. He first studies building drawings and specifications to determine the type and size of pipe and related materials to use. Then he bends, cuts, and threads the pipes according to specifications, using handtools and pipe-bending and pipe-threading machines. Next, he assembles the pipes and pipefittings and connects them by such methods as soldering, welding, or cementing. After putting all the pipes and pipefittings in place, he tests the piping system or equipment to make sure that it is installed properly.

The Pipe-Fitter Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Pipe Fitter within a given time.

The Pipe-Fitter Helper assists the Pipe Fitter in assembling and installing piping systems and equipment. He performs a number of tasks. Some of them are: cutting or drilling holes in walls; mounting pipe hangers and brackets on the walls and ceilings to hold the pipes; and carrying tools and pipes.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available. Work is performed indoors in a dusty and noisy atmosphere.

Qualifications

To become a Pipe Fitter, you must either complete an apprenticeship program that consists of 5 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training.
To qualify for an apprenticeship program, you usually must have a high school education or its equivalent. Courses in mathematics, physics, and chemistry will be very useful to you. You must be between 16 and 25 years of age. You must take tests to determine your aptitude for the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to stand for long periods of time, to work in cramped positions, and to work rapidly and accurately with your hands and fingers when using handtools, marking devices, and cutting or threading equipment.

Employment Prospects

There will be many thousands of job openings for Pipe Fitters during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Pipe Fitters due to the large increase expected in the use of heating, air-conditioning, and household appliances in homes, apartment and office buildings, and other structures. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in almost all communities and in many establishments. Good chances for finding employment will be at plumbing, heating, and air-conditioning contracting firms in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Pipe Fitter, you ma advance to a job as an estimator, a foreman, or a superintendent in a large construction company. You als may transfer easily to other industries such as aircraft manufacturing or ship and boat building and repairin You may also go into business for yourself by opening your own plumbing or pipefitting company.

As an apprentice, you will advance t a journeyman Pipe Fitter upon successful completion of 5 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Pipe Fitter by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee

Employment Prospects

There will be many thousands of job openings for Pipe Fitters during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Pipe Fitters due to the large increase expected in the use of heating, air-conditioning, and household appliances in homes, apartment and office buildings, and other structures. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in almost all communities and in many establishments. Good chances for finding employment will be at plumbing, heating, and air-conditioning contracting firms in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Pipe Fitter, you may advance to a job as an estimator, a foreman, or a superintendent in a large construction company. You also may transfer easily to other industries, such as aircraft manufacturing or ship and boat building and repairing. You may also go into business for yourself by opening your own plumbing or pipefitting company.

As an apprentice, you will advance to a journeyman Pipe Fitter upon successful completion of 5 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Pipe Fitter by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local construction company or plumbing or pipefitting shop. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

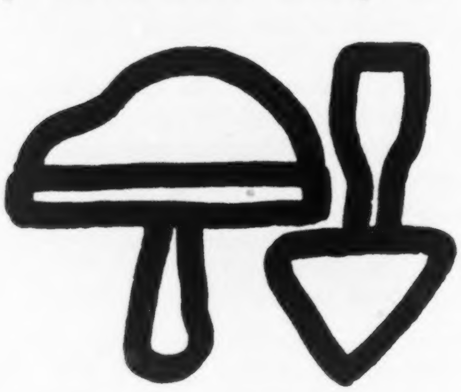
National Association of Plumbing-Heating-Cooling Contractors
1016 20th Street, NW.
Washington, D.C. 20036

United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada
901 Massachusetts Avenue, NW.
Washington, D.C. 20001

163.

STRUCTURAL
WORK
OCCUPATIONS

plasterer; plasterer apprentice; plasterer helper



Usual Duties

The Plasterer applies c
to interior walls and ce
buildings to produce a fi
following blueprints, ar
drawings, or oral instru
he applies wet plaster t
lath, wire lath, or mas
using a trowel and a hav
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applies a border of pla
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called a darby. When ap
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The Plasterer Apprentic
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within a given time.

The Plasterer Helper as
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units; mixing plaster; ca
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pprentice; elper

Usual Duties

The Plasterer applies coats of plaster to interior walls and ceilings of buildings to produce a finished surface, following blueprints, architect's drawings, or oral instructions. First, he applies wet plaster to gypsum lath, wire lath, or masonry by using a trowel and a hawk (a square plate of wood or metal). Next, he applies a border of plaster of the desired thickness to the top and bottom of the wall section to be covered. Then, he fills in the area between them with plaster. He then levels the surface to the exact thickness of the borders with a straight-edge tool, and smooths it with a long, flat tool called a darby. When applying the last coat of plaster, he may use several different tools and methods to obtain a variety of rough finishes.

The Plasterer Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Plasterer within a given time.

The Plasterer Helper assists the Plasterer in applying plaster to walls and ceilings. He performs a number of tasks. Some of them are: assisting in erecting and moving scaffolding units; mixing plaster; carrying or wheeling plaster to the worksite; and cleaning worktools and work areas.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available. Work is performed indoors in pleasant surroundings.

Employer usually requires workers to have, or to acquire, their own handtools.

Qualifications

To become a Plasterer, you must complete an apprenticeship program that consists of 3 or 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training.

To qualify for an apprenticeship program, you usually must have a high school education. Courses in drafting, blueprint reading, and mathematics will be very useful to you. You must be between 18 and 25 years of age. You must take tests to determine your aptitude for the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to stand for long periods of time, to stoop frequently, and to balance yourself while working on scaffolding. You must be able to work rapidly and accurately with your hands and fingers when using handtools. You must have good eyesight with normal color vision to mix plaster and apply it to surfaces according to specifications.

Employment Prospects

There will be about 20,000 job openings for Plasterers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Plasterers due to the increasing construction of homes, office buildings, apartment buildings, and other structures. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at construction sites in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Plasterer, yo
advance to a job as foreman or
estimator in a construction or
plastering contracting company
may also go into business for y
by opening your own plasterin
contracting firm.

As an apprentice, you will adva
a journeyman Plasterer upon suc
completion of 3 or 4 years of re
classroom instruction and on-the
training.

As a helper, you can, if you
advance to a journeyman or sk
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for recognition as a trainee.

Employment Prospects

There will be about 20,000 job openings for Plasterers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Plasterers due to the increasing construction of homes, office buildings, apartment buildings, and other structures. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at construction sites in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Plasterer, you may advance to a job as foreman or cost estimator in a construction or plastering contracting company. You may also go into business for yourself by opening your own plastering contracting firm.

As an apprentice, you will advance to a journeyman Plasterer upon successful completion of 3 or 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Plasterer by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local plastering contractor or construction company. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Bricklayers, Masons and Plasterers'
International Union of America
815 15th Street, NW.
Washington, D.C. 20005

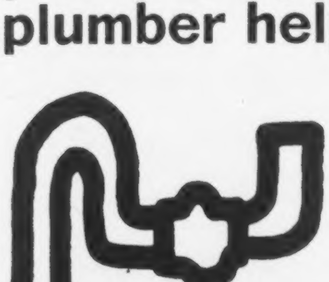
Contracting Plasterers' and Lathers'
International Association
304 Landmark Bldg.
1343 H Street, NW.
Washington, D.C. 20005

National Bureau for Lathing and
Plastering
1725 K Street, NW.
Washington, D.C. 20006

Operative Plasterers' and Cement
Masons' International Association of
the United States and Canada
1125 17th Street, NW.
Washington, D.C. 20036

STRUCTURAL
WORK
OCCUPATIONS

plumber; plumber apprentice; plumber helper



Usual Duties

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buildings. He
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Usual Duties

The Plumber assembles, installs, and repairs pipes and fixtures of heating, water, and drainage systems in buildings. He first studies blueprints or other specifications to determine where pipes and fixtures will be installed, how much piping and accessory parts will be needed, and the steps to take in installing the system. He marks the walls, floors, and ceilings to indicate the positions and passageways of the pipes, using a ruler, a spirit level, and a plumb bob, and makes openings in them for passage of pipes, using handtools and power tools. He cuts and threads the pipe, using pipe cutters, a cutting torch, and pipe-threading machine, and bends it, using a pipe-bending machine. He puts the pipes through the openings in the walls, floors, or ceilings, and fastens them in place, using handtools, power tools, soldering and welding equipment, bolts, clamps, and other devices. Then he connects all the plumbing fixtures, such as sinks and dishwashers, to the pipes, and fills them with water or air and reads pressure gages to test them for leaks.

The Plumber Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Plumber within a given time.

The Plumber Helper assists the Plumber in installing and repairing pipes and plumbing fixtures. He performs a number of tasks. Some of them are: cutting and drilling openings in walls for pipes; threading pipes with handtools; and carrying materials and tools.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available. Work is performed mostly indoors and often involves handling dirty and greasy objects.

Employer usually requires workers to have, or to acquire, their own handtools.

Qualifications

To become a Plumber, you must either complete an apprenticeship program that consists of 5 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeshp program, you usually must have a high school education or its equivalent. Courses in mathematics, physics, and chemistry will be very useful to you. You usually must be between 16 and 25 years of age. You may be required to take tests to determine your aptitude for the work. In most cities you must have a journeyman's license. To obtain this license you must pass a special examination to show your knowledge of the local building codes and your knowledge of plumbing.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to lift and carry heavy objects, to work in cramped places and in awkward positions, to stand for long periods of time, to climb ladders and to balance yourself on them while working, and to work rapidly and accurately with your hands and fingers when using handtools and work aids.

Employment Prospects

There will be many thousands of job openings for Plumbers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons, and because of the need for more Plumbers due to the big increase expected in the construction of homes, office buildings, apartments, and in the use of appliances. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be with plumbing and pipefitting contractors in building construction and with independent repair shops in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunitie

As an experienced Plumbe
advance to a job as fore
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As an apprentice, you will
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completion of 5 years of
classroom instruction and
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As a helper, you can, if
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eapprenticeship training for this kind work may be available through your al State Employment Service office der the Manpower Development and aining Act.

Advancement Opportunities

As an experienced Plumber, you may advance to a job as foreman in a contracting firm. You may also go into business for yourself by opening your own repair shop.

As an apprentice, you will advance to a journeyman Plumber upon successful completion of 5 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Plumber by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local independent plumbing and pipefitting contractor, independent repair shop, some government agencies and public utility companies, or shipbuilding or aircraft manufacturing firms. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

National Association of Plumbing-Heating-Cooling Contractors
1016 20th Street, NW.
Washington, D.C. 20036

United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada
901 Massachusetts Avenue, NW.
Washington, D.C. 20001

STRUCTURAL
WORK
OCCUPATIONS

sheet-metal worker; sheet-metal-worker apprentice; sheet-metal-shop helper

Usual Duties

The Sheet-Metal
installs, and rep
products, such a
tors, and furnace
reads the job or
find out the kind
the size and sha
part. Then he m
dimension and re
metal parts, usin
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Next, he sets up
to cut, bend, or s
then hammers t
or block into the
welds the parts
smooths the sea
surfaces, using f
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measuring instru

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Apprentice—Gen
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cleaning and sc
and painting m

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Usual Duties

The Sheet-Metal Worker assembles, installs, and repairs sheetmetal products, such as drainpipes, ventilators, and furnace casings. First, he reads the job order or blueprints to find out the kind of metal to use and the size and shape of the product or part. Then he measures and marks dimension and reference lines on the metal parts, using such instruments as a compass, rule, scribe, and punch. Next, he sets up and operates machines to cut, bend, or straighten the parts. He then hammers the parts on an anvil or block into the desired shapes. He welds the parts together, and then smooths the seams, joints, and burred surfaces, using files and grinders. He inspects the finished product to make sure that it meets specifications, using calipers, micrometers, and other measuring instruments.

The Sheet-Metal-Worker Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Sheet-Metal Worker within a given time.

The Sheet-Metal-Shop Helper assists the Sheet-Metal Worker in fabricating sheetmetal products and equipment. He performs a number of tasks. Some of them are: lifting, positioning, and removing workpieces from machines; cleaning and scraping metal pieces; and painting metal stock.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Work is performed both indoors and outdoors.

Employer may require workers to have, or to acquire, their own handtools.

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Qualifications

To become a Sheet-Metal Worker, you must either complete an apprenticeship program that consists of 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school education. Courses in mathematics, drafting, and sheetmetal work in vocational school will be very useful to you. You usually must be between 16 and 23 years of age. You may be required to take tests to determine your aptitude for the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to lift and carry heavy objects; to stand for long periods of time; to work in cramped places and awkward positions; to climb ladders and to balance yourself on them while working; and to work rapidly and accurately with your hands and fingers when using handtools and drawing and marking instruments.

Employment Prospects

There will be about 21,000 job openings for Sheet-Metal Workers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Sheet-Metal Workers due to the rapid increase in the construction of homes, office buildings, factories, and other structures and in the use of air-conditioning systems. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in many communities and in many establishments. Good chances for finding employment will be with construction companies, sheet-metal contracting firms, and manufacturing establishments that fabricate sheetmetal products and equipment, usually located in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Sheet-Me
you may advance to a job a
or superintendent of a larg
struction company. You ma
easily transfer to other ind
such as aircraft manufactu
shipbuilding. You may also
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State Employment Service office
the Manpower Development
raining Act.

Advancement Opportunities

As an experienced Sheet-Metal Worker, you may advance to a job as foreman or superintendent of a large construction company. You may also easily transfer to other industries, such as aircraft manufacturing and shipbuilding. You may also go into business for yourself by opening your own repair shop or contracting firm.

As an apprentice, you will advance to a journeyman Sheet-Metal Worker upon successful completion of 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Sheet-Metal Worker by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local construction firm, independent sheetmetal contracting firm, government or business establishment that does its own construction or alteration work, or plants or factories that fabricate and install heating, refrigeration, and air-conditioning equipment. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Sheet Metal and Air Conditioning
Contractors' National Association,
Inc.
107 Center Street
Elgin, Ill. 60120

Sheet Metal Workers' International
Association
1000 Connecticut Avenue, NW.
Washington, D.C. 20036

STRUCTURAL
WORK
OCCUPATIONS

telephone installer

Usual Duties

The Telephone Installer installs
removes telephones in homes and
places of business. As a start, h
inspects the working area to deter
how he is going to install the
telephones. Then he climbs poles
attaches outside wires. Next, he
connects telephone cable termina
with inside wires. Following this
installs the related inside wiring.
doing this, he uses handtools ar
follows installation diagrams. La
he tests the telephones to make s
that everything is working properl

taller

Usual Duties

The Telephone Installer installs and removes telephones in homes and places of business. As a start, he inspects the working area to determine how he is going to install the telephones. Then he climbs poles and attaches outside wires. Next, he connects telephone cable terminals with inside wires. Following this, he installs the related inside wiring. In doing this, he uses handtools and follows installation diagrams. Lastly, he tests the telephones to make sure that everything is working properly.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available. Work is performed indoors and outdoors in all kinds of weather.

Qualifications

To become a Telephone Installer, you must complete about 7 months of classroom and on-the-job training. You must have a high school or vocational school education. Courses in mathematics, physics, speech, and shopwork will be very useful to you. You must take tests to determine your aptitude for the work.

You must be physically able to climb telephone poles, to work in cramped positions, and to work rapidly and accurately with your hands and fingers when using handtools and work aids. You must have good eyesight with normal color vision to work with different colors of wires.

You must be friendly, patient, and tactful in order to get along well with customers.

Employment Prospects

There will be many thousands of job openings for Telephone Installers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Telephone Installers to meet the needs of the expected increase in the use of telephones as the population grows and moves from place to place. As a result, your chances of getting a job are good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at telephone companies in large cities.

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Employment Prospects

There will be many thousands of job openings for Telephone Installers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Telephone Installers to meet the needs of the expected increase in the use of telephones as the population grows and moves from place to place. As a result, your chances of getting a job are good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at telephone companies in large cities.

Advancement Opportunities

As an experienced Telephone Installer, you may advance to the higher paying job of PBX (switchboard) installer.

Finding the Job

Apply directly at the employment or personnel office of any local telephone company. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers.

For more information on this kind of work, write to:

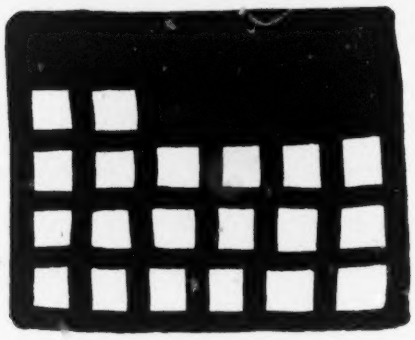
Alliance of Independent Telephone Unions
Room 302,
1422 Chestnut Street
Philadelphia, Pa. 19102

Communications Workers of America
1925 K Street, NW.
Washington, D.C. 20006

International Brotherhood of Electrical Workers
1200 15th Street, NW.
Washington, D.C. 20005

STRUCTURAL
WORK
OCCUPATIONS

tile setter; tile-setter apprentice; tile-setter helper



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Usual Duties

The Tile Setter applies tile to walls, floors, and ceilings, following design specifications. First, he examines blueprints, measures and marks surfaces to be covered, and lays out the work. Then, he measures and cuts metal lath to size for walls and ceilings with tin snips, and tacks the lath to surfaces with a staple gun or hammer. Next, he spreads a plaster base over the lath with a trowel and levels the plaster to the specified thickness, using a screed (wooden or metal strips properly spaced to gauge the thickness of plaster, concrete, or asphalt). In laying tile floors, he spreads concrete on the subfloor with a trowel and levels it with a screed; or he spreads mastic or other adhesive on the flooring, using a serrated spreader. He cuts and shapes the tile with tile cutters and biters, positions the tile, and taps it in place with a trowel handle.

The Tile-Setter Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Tile Setter within a given time.

The Tile-Setter Helper assists the Tile Setter in applying tile to walls, floors, and ceilings. He performs a number of tasks. Some of them are: erecting scaffolding; mixing mortar; and cleaning work tools and work areas.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available. Work is performed both indoors and outdoors.

Work is not considered as hazardous, but there is a possibility of falling when work is being performed on scaffolds.

Employer usually requires workers to have, or to acquire, their own handtools.

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Qualifications

To become a Tile Setter, you must either complete an apprenticeship program that consists of 3 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school education or its equivalent. Courses in blueprint reading, layout work, basic mathematics, art, and shop practices will be very useful to you. You usually must be between 17 and 22 years of age.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.

You must be physically able to stand for long periods of time, to stoop frequently, to balance yourself while working on scaffolding, and to work rapidly and accurately with your hands and fingers when using handtools. You must have good eyesight with normal color vision to aline the tile and maintain color harmony according to specifications.

Employment Prospects

There will be many thousands of job openings for Tile Setters during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Tile Setters due to the expected rapid expansion in construction activity. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at construction sites in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportuniti

As an experienced Tile Se
advance to a job as forem
Tile Setters in a large co
contracting company. Yo
into business for yourself
your own contracting fir

As an apprentice, you wi
a journeyman Tile Setter u
successful completion o
of related classroom ins
on-the-job training.

As a helper, you can, if y
advance to a journeyman
Tile Setter by having edu
high school level or its e
then applying for an app
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Employment Prospects

There will be many thousands of job openings for Tile Setters during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Tile Setters due to the expected rapid expansion in construction activity. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at construction sites in large cities.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Tile Setter, you may advance to a job as foreman over other Tile Setters in a large construction or contracting company. You may also go into business for yourself by opening your own contracting firm.

As an apprentice, you will advance to a journeyman Tile Setter upon successful completion of 3 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Tile Setter by having education at a high school level or its equivalent, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local construction or contracting company. Register at your local State Employment Service office. Ask your high school counselor or trade school instructor for information. Contact local union officials for information. Read the ads in your daily newspapers.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

National Terrazzo and Mosaic
Association, Inc.
1420 New York Avenue, NW.
Washington, D.C. 20005

Tile Contractors' Association of America
1420 New York Avenue, NW.
Washington, D.C. 20005

STRUCTURAL
WORK
OCCUPATIONS

welder;
welder apprentice;
welder helper

Usual Duti

The Welder
fabricated,
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furnace she
parts. In p
blueprints
welding ch
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equipment

The Welder
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The Welder
to position
fabricated
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pprentice; elper

Usual Duties

The Welder positions, fits, and welds fabricated, cast, and forged metal parts to assemble structural forms, such as machinery frames, tanks, furnace shells, and building and bridge parts. In planning his work, he uses blueprints and his knowledge of welding characteristics of metal. He selects the equipment and plans the layout, assembly, and welding technique to be used by applying his knowledge of geometry, physical properties of metal, effects of heat, allowances for thickness, machining, weld shrinkage, and welding techniques. Then he lays out, positions, alines, and fits the parts together, and bolts, clamps, and tack-welds parts to secure them in position for welding. Lastly, he sets up arc or gas-welding equipment and welds the parts.

The Welder Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Welder within a given time.

The Welder Helper assists the Welder to position, aline, and fit together fabricated plates, structural shapes, and other parts preparatory to assembly into structural fabricated products. He performs a number of tasks. Some of them are: placing and moving blocking, braces, and jigs to hold parts; positioning and turning clamps and bolting together straps or parts, using hand or power wrenches; transporting tools, fixtures, and parts; bucking rivets; and sweeping the work area.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available. Work is performed both indoors and outdoors.

174.

Qualifications

To become a Welder, you must either complete an apprenticeship program that consists of 4 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you usually must have a high school or vocational school education with training in welding methods. Courses in mathematics, physics, mechanical drawing, and blueprint reading will be very useful to you. You must take tests to determine your aptitude for the work. In most States you must have a Welder's license. To obtain this license you must pass a written examination and also show that you can do the work.

As a helper your education is usually not important; to progress to better, higher level jobs, it is important.
You must be physically able to stand for long periods of time, to work in cramped positions, and to work rapidly and accurately with your hands and fingers when using handtools. You must have good eyesight to perform welding assignments according to specifications.

Employment Prospects

There will be about 230,000 job openings for Welders during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Welders due to the general expansion of welded steel structures in the construction industry. As a result, your chances of getting an apprenticeship or a job as a helper are very good.

Jobs are found in many communities and in many establishments. Good chances for finding employment will be at construction companies in large cities.

This kind of work is available to both men and women.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Welder, you ma
advance to a job as welding technici
inspector, or foreman. You may al
easily transfer to other industries,
such as automobile manufacturing,
aircraft manufacturing, or ship and
boat building and repairing. You
may also go into business for
yourself by opening your own weldi
and repair shop.

As an apprentice, you will advance
a journeyman Welder upon success
completion of 4 years of related
classroom instruction and on-the-jo
training.

As a helper, you can, if you wish,
advance to a journeyman or skilled
Welder by having the required
education, and then applying for a
apprenticeship or asking your
employer for recognition as a traine

oyment Prospects

will be about 230,000 job
ngs for Welders during the next
ears. These job openings will
about because of the need to
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their jobs for other reasons and
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o the general expansion of welded
structures in the construction
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nstruction companies in large
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kind of work is available to both
and women.

pprenticeship training for this
of work may be available through
local State Employment Service
under the Manpower Development
raining Act.

Advancement Opportunities

As an experienced Welder, you may advance to a job as welding technician, inspector, or foreman. You may also easily transfer to other industries, such as automobile manufacturing, aircraft manufacturing, or ship and boat building and repairing. You may also go into business for yourself by opening your own welding and repair shop.

As an apprentice, you will advance to a journeyman Welder upon successful completion of 4 years of related classroom instruction and on-the-job training.

As a helper, you can, if you wish, advance to a journeyman or skilled Welder by having the required education, and then applying for an apprenticeship or asking your employer for recognition as a trainee.

Finding the Job

Apply directly at the employment or personnel office of any local construction company or general welding and repair shop. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

The American Welding Society
345 East 47th Street
New York, N.Y. 10017

International Association of Machinists and Aerospace Workers
1300 Connecticut Avenue, NW.
Washington, D.C. 20036

International Brotherhood of Boilermakers, Iron Shipbuilders, Blacksmiths, Forgers, and Helpers
8th at State Avenue
Kansas City, Kan. 66101

International Union, United Automobile, Aerospace, and Agricultural Implement Workers of America
8000 East Jefferson Avenue
Detroit, Mich. 48214

United Association of Journeymen and Apprentices of the Plumbing and Pipe Fitting Industry of the United States and Canada
901 Massachusetts Avenue, NW.
Washington, D.C. 20001

MISCELLANEOUS
OCCUPATIONS

automobile-service-station attendant

Usual Duties

The Automo
Attendant se
trucks, and c

In response
he puts gasc
and water int
washes their
lubricates ve
oil, and repla
air filters, an
occasions he
tires, fills r
and changes
may replace
and wash and

He collects
and supplies
credit card s

Usual Duties

The Automobile-Service-Station Attendant services automobiles, buses, trucks, and other automotive vehicles.

In response to customers' requests, he puts gasoline, diesel fuel, oil, and water into their vehicles, and washes their windshields. He also lubricates vehicles, changes motor oil, and replaces accessories, oil filters, air filters, and fan belts. On other occasions he repairs and replaces tires, fills radiators with antifreeze, and changes spark plugs. He also may replace lights and light bulbs and wash and wax vehicles.

He collects payment for services and supplies in cash or by completing credit card sales form.

Characteristics of Job

Work is steady throughout the year, usually with a 5- or 6-day, 40- to 48-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Work is performed mostly outdoors in all kinds of weather and often involves handling dirty and greasy objects.

Some employers furnish work uniforms.

Qualifications

To become an Automobile-Service-Station Attendant, you must complete a few weeks of on-the-job training. You will be given preference if you have a high school education, but it is not always required. Courses in arithmetic, bookkeeping, and automobile repair work in a vocational school will be very useful to you. You usually must have a driver's license to drive customers' vehicles on the premises of the service station and when driving a company-owned vehicle to provide road services.

You must be physically able to lift and carry heavy objects, such as batteries and automobile wheels, to work in cramped places and awkward positions, and to work well with your hands and fingers when using handtools.

You must be friendly, courteous, neat, and able to speak well with customers.

Employment Prospects

There will be about 90,000 job openings for Automobile-Service-Station Attendants during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Automobile-Service-Station Attendants to service the ever-increasing number of automobiles and to perform additional maintenance on the newer, more complex cars. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities. Good chances for finding employment will be in the larger cities.

As a student you can usually obtain part-time and summer work in almost any community.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Automobile-Ser
Station Attendant, you may advanc
to a job as an assistant manager,
a night manager, or a station mana
You also may go into business for
yourself by opening your own servi
station or by leasing one.

Employment Prospects

There will be about 90,000 job openings for Automobile-Service-Station Attendants during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their obs for other reasons and because of he need for more Automobile-Service-Station Attendants to service the ever-increasing number of automobiles and to perform additional maintenance on the newer, more complex cars. As a result, your chances of getting a job are very good.

Jobs are found in nearly all communities. Good chances for finding employment will be in the larger cities.

As a student you can usually obtain part-time and summer work in almost any community.

Training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Automobile-Service-Station Attendant, you may advance to a job as an assistant manager, a night manager, or a station manager. You also may go into business for yourself by opening your own service station or by leasing one.

Finding the Job

Apply directly at the employment or personnel office of any local gasoline service station or any oil company. Register at your local State Employment Service office. Ask your high school counselor for information. Read the ads in your daily newspapers.

For more information on this kind of work, write to:

American Petroleum Institute,
Marketing Division
1271 Avenue of the Americas
New York, N.Y. 10020

MISCELLANEOUS
OCCUPATIONS

bookbinder; bookbinder apprentice

Usual Duties

The Bookbinder bi
or pamphlets and
finishing operation
production procedu
order. As a start,
sheets into one or
the sheets will be
Next, he inserts a
that have been pr
Then he sews the
illustrations togeth
order to form the
this, he shapes th
power presses and
Then he glues fab
backs of the book
reinforcement. Fo
glues or pastes th
book bodies. Last
of a variety of fini
such as embossing
on the book covers
books in paper jac

The Bookbinder A
Apprentice—Gener
to perform all the
Bookbinder within

apprentice

Usual Duties

The Bookbinder binds covers to books or pamphlets and performs book finishing operations. He determines the production procedures from the job order. As a start, he folds the printed sheets into one or more units so that the sheets will be in proper order. Next, he inserts any illustrations that have been printed separately. Then he sews the units and illustrations together in the proper order to form the book body. After this, he shapes the book bodies with power presses and trimming machines. Then he glues fabric strips to the backs of the book bodies for reinforcement. Following this, he glues or pastes the covers onto the book bodies. Lastly, he performs any of a variety of finishing operations, such as embossing lettering or designs on the book covers, and wraps the books in paper jackets.

The Bookbinder Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Bookbinder within a given time.

Characteristics of Job

Work is steady throughout the year, usually with a regular 5-day, 40-hour workweek. Overtime is usually available. Work is performed indoors in pleasant surroundings.

Qualifications

To become a Bookbinder, you must either complete an apprenticeship program that consists of 4 or 5 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training.

To qualify for an apprenticeship program, you must have a high school education. Courses in art and machine shop operations will be very useful to you. You must be at least 18 years of age. You must take tests to determine your aptitude for the work.

You must be able to work rapidly and accurately with your hands and fingers when using handtools, power presses, and trimming machines. You must have good eyesight with normal color vision to assemble printed sheets and renovate old, worn book bindings.

Employment Prospects

There will be about 6,000 job openings for Bookbinders during the next 10 years. These job openings will come about mostly because of the need to replace workers who will retire or leave their jobs for other reasons. As a result, your chances of getting an apprenticeship are not very good.

Jobs are found in many communities and in many establishments. Good chances for finding employment will be at commercial printing establishments in large cities.

This kind of work is available to both men and women.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportu

As an experienced Bo
you may advance to a
of the bindery depart
publishing firm. You
into business for your
your own bookbinding

As an apprentice, you
journeyman Bookbind
successful completion
of related classroom
on-the-job training.

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will be about 6,000 job openings
okbinders during the next
ars. These job openings will
about mostly because of the
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are found in many communities
n many establishments. Good
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t commercial printing establish-
s in large cities.

kind of work is available to both
and women.

pprenticeship training for this
of work may be available through
local State Employment Service
under the Manpower Development
Training Act.

Advancement Opportunities

As an experienced Bookbinder, you may advance to a job as foreman of the bindery department of a publishing firm. You may also go into business for yourself by opening your own bookbinding shop.

As an apprentice, you will advance to a journeyman Bookbinder upon successful completion of 4 or 5 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local bookbinding shop or the bindery department of any commercial printing plant or publishing firm. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

International Brotherhood of
Bookbinders
1612 K Street, NW.
Washington, D.C. 20016

Printing Industries of America, Inc.
20 Chevy Chase Circle, NW.
Washington, D.C. 20015

MISCELLANEOUS
OCCUPATIONS

compositor; compositor apprentice

Usual Duties

The Compositor sets type by han
machine for printing articles,
headings, and other printed
First, he selects the type style
size according to instructions fo
job to be done. Then, he selec
letter at a time and puts it in a
called a composing stick. Next
inserts lead, brass, or copper to
even out the line. After this,
inserts lead slugs or lines of
to adjust the length of the who
setup. Then, when the stick is
he dumps the type from the
to another tray called a galley.
Following this, he fastens the ty
together tightly, inks the type
presses paper against it. In
this, he produces a sample of th
printed articles which is calle
proof. Finally, he examines the
proof and corrects any mistakes
may have been made in setting
type. After the job is finished, he
cleans the type and returns it to
storage case.

The Compositor Apprentice (See
Apprentice—General Comments)
to perform all the tasks of the
Compositor within a given time.

ntice

Usual Duties

The Compositor sets type by hand and machine for printing articles, headings, and other printed matter. First, he selects the type style and size according to instructions for the job to be done. Then, he selects one letter at a time and puts it in a tray called a composing stick. Next, he inserts lead, brass, or copper to even out the line. After this, he inserts lead slugs or lines of quads to adjust the length of the whole setup. Then, when the stick is full, he dumps the type from the stick to another tray called a galley. Following this, he fastens the type together tightly, inks the type, and presses paper against it. In doing this, he produces a sample of the printed articles which is called a proof. Finally, he examines the proof and corrects any mistakes that may have been made in setting the type. After the job is finished, he cleans the type and returns it to its storage case.

The Compositor Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Compositor within a given time.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 35- to 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available. Work is performed indoors sometimes in a noisy and hot atmosphere.

Qualifications

To become a Compositor, you must either complete an apprenticeship program that consists of 6 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training.

To qualify for an apprenticeship program, you usually must have a high school education. Courses in English grammar and spelling, typing, and photography will be very useful to you. You must take tests to determine your aptitude for the work.

You must be physically able to stand for long periods of time and to work rapidly and accurately with your hands and fingers when using handtools. You must have good eyesight with normal color vision to set type according to specifications.

Employment Prospects

There will only be a few hundred job openings for Compositors during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons. As a result, your chances of getting an apprenticeship are only fair.

Jobs are found in many communities and in many establishments. Good chances for finding employment will be at newspaper plants, commercial printing shops, or publishing firms in large cities.

This kind of work is available to both men and women.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Compositor, y
advance to a job as foreman of
composing room in a newspape
commercial printing shop.

As an apprentice, you will advan
a journeyman Compositor upon
successful completion of 6 years
related classroom instruction an
on-the-job training.

Employment Prospects

There will only be a few hundred job openings for Compositors during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons.

As a result, your chances of getting an apprenticeship are only fair.

Jobs are found in many communities and in many establishments. Good chances for finding employment will be at newspaper plants, commercial printing shops, or publishing firms in large cities.

This kind of work is available to both men and women.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Compositor, you may advance to a job as foreman of the composing room in a newspaper or commercial printing shop.

As an apprentice, you will advance to a journeyman Compositor upon successful completion of 6 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local newspaper plant, commercial printing shop, or book and periodical printing plant. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

International Typographical Union
P. O. Box 157
Colorado Springs, Colo. 80901

International Typographic Composition
Association, Inc.
2333 Wisconsin Avenue, NW.
Washington, D.C. 20007

Printing Industries of America, Inc.
20 Chevy Chase Circle, NW.
Washington, D.C. 20015

MISCELLANEOUS
OCCUPATIONS

parking-lot attendant

Usual Duties

Th Parking-Lot Attendant parks automobiles for customers in a parking lot or a storage garage collects fees for the service.

He places a numbered tag on t windshield of an automobile t parked and then hands the cust similar tag to be used later in locating the parked car. Next, records the time of entrance o car onto the lot and then drive a parking space or points out a s for the driver of the car to park i When a customer calls for his c he accepts money from him and change. Then he takes the num tag, locates the car, and drives to the customer or directs the customer to his car. He also pa the parking area to prevent thefts

US

-lot
nt

Usual Duties

Th Parking-Lot Attendant parks automobiles for customers in a parking lot or a storage garage and collects fees for the service.

He places a numbered tag on the windshield of an automobile to be parked and then hands the customer a similar tag to be used later in locating the parked car. Next, he records the time of entrance of the car onto the lot and then drives it to a parking space or points out a space for the driver of the car to park in. When a customer calls for his car, he accepts money from him and makes change. Then he takes the numbered tag, locates the car, and drives it to the customer or directs the customer to his car. He also patrols the parking area to prevent thefts.

Characteristics of Job

Work is steady throughout the year, usually with a 5- or 6-day, 40- to 48-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Work is performed both indoors and outdoors in all kinds of weather.

Employer usually furnishes work uniforms if they are required.

Qualifications

You don't have to have any high school education, but some is preferred. You must have a driver's license and be at least 18 years of age.

You must be physically able to be on your feet for long periods of time during a workday. You must have good eyesight to park cars within limited space.

Employment Prospects

There will be many thousands of job openings for Parking-Lot Attendants during the next 10 years. These job openings will come about because of the need to replace workers who will leave their jobs for various reasons, and because of the need for more Parking-Lot Attendants to handle the ever-increasing number of cars and the increasing number of parking lots and garages. As a result, your chances of getting a job are very good.

Jobs are found in almost all communities. Good chances for finding employment will be at parking lots and garages in large cities.

Advancement

You don't have
advance in thi
lot or garage,
experienced Pa
may advance t
attendants or

high school
eferred.
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e to be
ds of time
t have
ithin

Employment Prospects

There will be many thousands of job openings for Parking-Lot Attendants during the next 10 years. These job openings will come about because of the need to replace workers who will leave their jobs for various reasons, and because of the need for more Parking-Lot Attendants to handle the ever-increasing number of cars and the increasing number of parking lots and garages. As a result, your chances of getting a job are very good.

Jobs are found in almost all communities. Good chances for finding employment will be at parking lots and garages in large cities.

Advancement Opportunities

You don't have much of a chance to advance in this job. In a large parking lot or garage, however, you, as an experienced Parking-Lot Attendant, may advance to a supervisor of other attendants or to a job as a cashier.

Finding the Job

Apply directly at the employment or personnel office of any local parking-lot organization or garage. Register at your local State Employment Service office. Read the ads in your daily newspapers.

MISCELLANEOUS
OCCUPATIONS

transferrer;
transferrer apprentice

Usual Duties

The Transferrer trans
copy or its negative
offset printing plates
he studies job instruc
which solutions to pr
to be done. Then, he
chemicals required t
platemaking solution
going to use. In doi
graduates, beakers, a
he washes the graine
with water or acid so
remove dirt and greas
Next, he pours count
solution over the gra
the plate and sprea
cotton pad so the p
be smooth. Followin
the plate on a whirle
starts the plate-whirli
Then, he pours a sens
onto the center of the
so that the plate surf
coated evenly. Next,
sensitized plate thro
or positive image to
lights to transfer the
plate. Finally, he deve
and treats it with ch
bring out the image.

The Transferrer Appre
Apprentice—General
to perform all the tas
Transferrer within a

apprentice

Usual Duties

The Transferrer transfers photographed copy or its negative image to metal offset printing plates. As a start, he studies job instructions to determine which solutions to prepare for the job to be done. Then, he mixes the chemicals required to make the platemaking solutions that he is going to use. In doing this, he uses graduates, beakers, and stirrers. Then, he washes the grained metal plate with water or acid solution to remove dirt and grease from the plate. Next, he pours counter etching solution over the grained surface of the plate and spreads it with a cotton pad so the plate surface will be smooth. Following this, he clamps the plate on a whirler disk and starts the plate-whirling machine. Then, he pours a sensitizing solution onto the center of the whirling plate so that the plate surface will be coated evenly. Next, he exposes the sensitized plate through the negative or positive image to strong arc lights to transfer the image to the plate. Finally, he develops the plate and treats it with chemicals to bring out the image.

The Transferrer Apprentice (See Apprentice—General Comments) learns to perform all the tasks of the Transferrer within a given time.

Characteristics of Job

Work is steady throughout the year, usually with a 5-day, 40-hour workweek. Work schedule may include evenings, nights, holidays, and weekends. Overtime is usually available. Work is performed indoors and often involves handling objects that have been chemically treated.

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Qualifications

To become a Transferrer, you must either complete an apprenticeship program that consists of 4 to 6 years of related classroom instruction and on-the-job training or learn the work informally by on-the-job training. To qualify for an apprenticeship program, you must have at least a high school education. Courses in art, chemistry, drafting, and physics will be very useful to you. You must be at least 18 years of age. You must take tests to determine your aptitude for the work.

You must be physically able to stand for long periods of time and to work rapidly and accurately with your hands and fingers when using handtools and measuring devices. You must have good eyesight with normal color vision to transfer images according to job specifications.

Employment Prospects

There will be many thousands of job openings for Transferrers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Transferrers due to the increasing use of colored printing matter in the advertising industry. As a result, your chances of getting an apprenticeship are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at newspapers or independent commercial printing firms in large cities.

This kind of work is available to both men and women.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Transferrer, y
advance to a job as foreman
the lithographic department of
newspaper or other printing fir
also may go into business for
yourself by opening your own pr
shop.

As an apprentice, you will advan
a journeyman Transferrer upon
successful completion of 4 to
of related classroom instruction
on-the-job training.

Employment Prospects

There will be many thousands of job openings for Transferrers during the next 10 years. These job openings will come about because of the need to replace workers who will retire or leave their jobs for other reasons and because of the need for more Transferrers due to the increasing use of colored printing matter in the advertising industry. As a result, your chances of getting an apprenticeship are very good.

Jobs are found in nearly all communities and in many establishments. Good chances for finding employment will be at newspapers or independent commercial printing firms in large cities.

This kind of work is available to both men and women.

Preapprenticeship training for this kind of work may be available through your local State Employment Service office under the Manpower Development and Training Act.

Advancement Opportunities

As an experienced Transferrer, you may advance to a job as foreman of the lithographic department of a newspaper or other printing firm. You also may go into business for yourself by opening your own printing shop.

As an apprentice, you will advance to a journeyman Transferrer upon successful completion of 4 to 6 years of related classroom instruction and on-the-job training.

Finding the Job

Apply directly at the employment or personnel office of any local newspaper or independent printing shop. Register at your local State Employment Service office. Ask your high school counselor for information. Contact local union officials for information. Read the ads in your daily newspapers. Visit the local office of the Civil Service Commission or your local post office and ask for information.

For more information on apprentice jobs, see page 20.

For more information on this kind of work, write to:

Printing Industries of America, Inc.
20 Chevy Chase Circle, NW.
Washington, D.C. 20015

National Association of Photo-
Lithographers
230 West 41st Street
New York, N.Y. 10036

Note to Counselors

Although much more is being do
particularly in schools, to get youn
to start thinking about jobs and c
serious occupational information
exists between young people and
sponsible for providing vocational
and occupational information to t
counselors, this may not surprise
your daily dealings with young pe
may have reached a similar co
Many students enter the world of v
little knowledge of it and their re
it. It is in helping to bridge this
tional gap that this edition of the J
for Young Workers should be of
you. It touches on the major as
occupational and other informatio
young person should be aware o
entering the world of work. It wi
many of his questions while su
others that can be answered only fr
sources.

One of the prerequisites to effecti
seling is knowledge of employment
in industries and occupations a
these changes mean to a young pers
making his chioce of jobs. Kno
significance of such employment
entails an understanding of how j
ings arise. Job openings become
when workers have to be replaced a
more workers have to be hired in
to those who are replaced. In the
stance, the new workers are called
ment needs. In the second insta
number of new workers is called ne
For example, suppose 800,000 job
for elementary school teachers are
to become available during the
years, and that 600,000 of these

18

o Counselors

Although much more is being done today, particularly in schools, to get young people to start thinking about jobs and careers, a serious occupational information gap still exists between young people and those responsible for providing vocational guidance and occupational information to them. As counselors, this may not surprise you. In your daily dealings with young people, you may have reached a similar conclusion. Many students enter the world of work with little knowledge of it and their relation to it. It is in helping to bridge this informational gap that this edition of the **Job Guide for Young Workers** should be of value to you. It touches on the major aspects of occupational and other information that a young person should be aware of before entering the world of work. It will answer many of his questions while suggesting others that can be answered only from other sources.

One of the prerequisites to effective counseling is knowledge of employment changes in industries and occupations and what these changes mean to a young person when making his chioce of jobs. Knowing the significance of such employment changes entails an understanding of how job openings arise. Job openings become available when workers have to be replaced and when more workers have to be hired in addition to those who are replaced. In the first instance, the new workers are called replacement needs. In the second instance, the number of new workers is called net growth. For example, suppose 800,000 job openings for elementary school teachers are expected to become available during the next 10 years, and that 600,000 of these openings will be the result of the need to replace the teachers who will retire, die, or leave their jobs for other reasons. The 200,000 new workers that will be required will make up the net growth in that job, and the number of workers employed as elementary school teachers will be growing by that amount.

On the other hand, suppose that job openings for bookbinders during the next 10 years are expected to be 2,000 and that all these job openings are for replacement needs. Thus, the job of bookbinder is not expected to grow at all, and there will be no net gorwth.

Again, suppose that the number of farmhands now on the employment rolls is 2 million. In addition, suppose that the number of job openings is expected to be 1 million in 1975. This expected difference of 1 million fewer workers means that the job or occupation of farmhand will be sharply decreasing during the next 10 years. Such a sharp decrease is, in fact, what has been happening to farmhands for many years.

When advising a young person on vocational choices, you should consider whether the job openings in his potential area of work are solely for replacement needs or for replacement need plus net growth. If the former situation is characteristic of his vocational interests, you may wish to inform him of other areas of work.

A brief look at table 1 will tell you where job openings are expected to occur in the near future and where they are expected to decline or remain about the same. The industry group designations in the table are the same as those presented in the material for the young reader (pp. 15 to 16) and closely correspond with those in the **Stand-**

ard Industrial Classification Manual (1967 edition). It must be kept in mind that the figures given here are for industry groups. Employment changes in individual industries within a group will vary. Moreover, the employment estimates reflect what is expected to occur throughout the country as a whole and not in any particular locality. Local employment changes may vary widely from the national estimates. Job market information on the local level may be available in State Employment Service offices and in some public libraries and school guidance departments.

Chart 1 shows the changes that are taking place in jobs by putting them into nine occupational groups. These groups
somewhat from those presented in th
terial for the young reader. For instar
job included in the **Skilled** group in c
may be included in either **Machine T**
occupations, **Bench Work occupa**
Structural Work occupations, or even M
laneous occupations in the grouping t
on pages 5 and 6 These occupa
categories were taken from the **Diction**
Occupational Titles (1965 ed.). Yet, i
of these differences between the two
pational groupings, chart 1 serves ve
to indicate the trends regarding o
tional growth and decline. However,
a clearer and more definitive pict

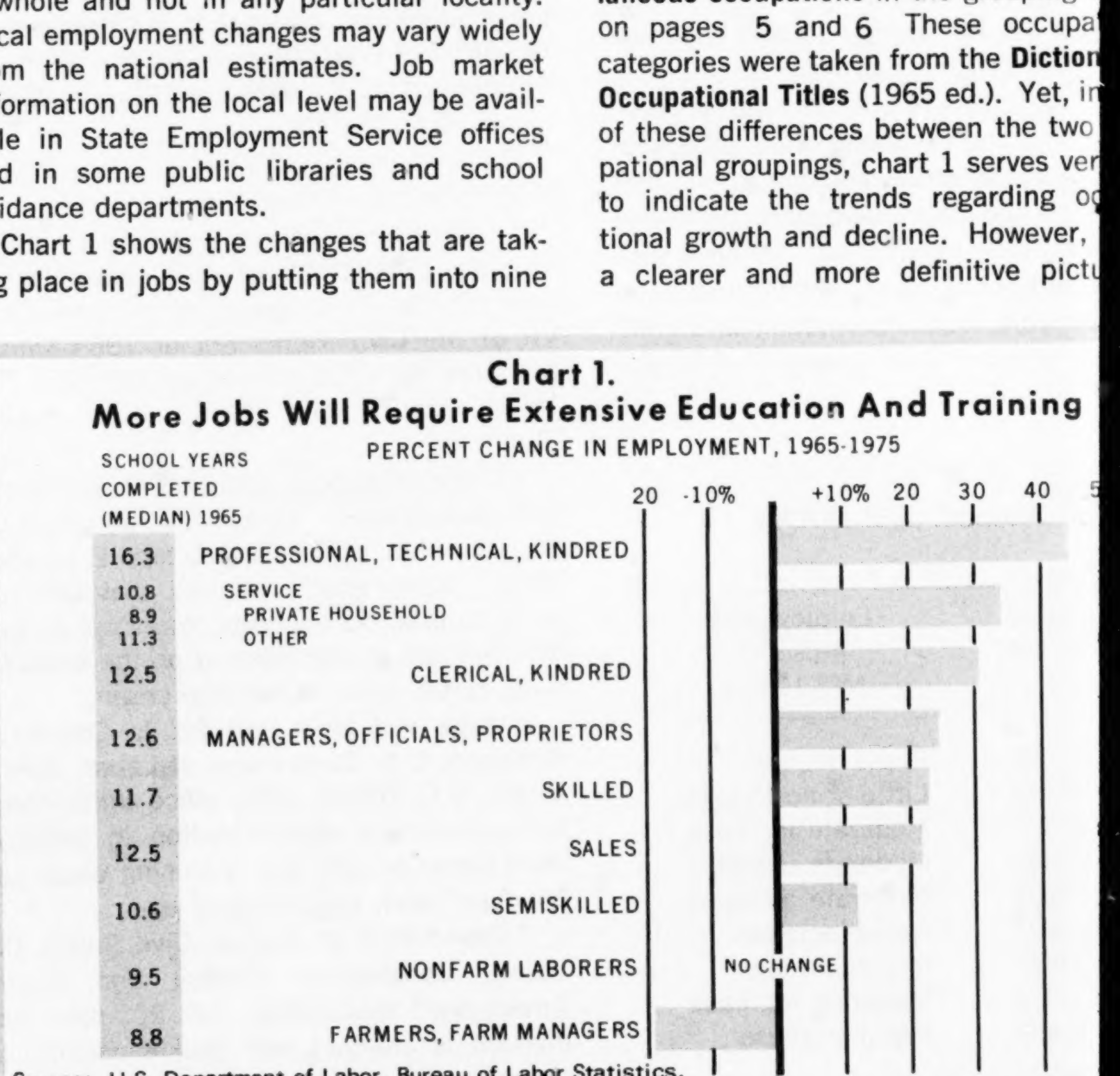

Chart 1.

More Jobs Will Require Extensive Education And Training

Source: U.S. Department of Labor, Bureau of Labor Statistics. *Occupational Outlook Handbook, 1968-1969, p. 17.*

Manual (1967
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Moreover, the
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the country as
icular locality.
nay vary widely
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Service offices
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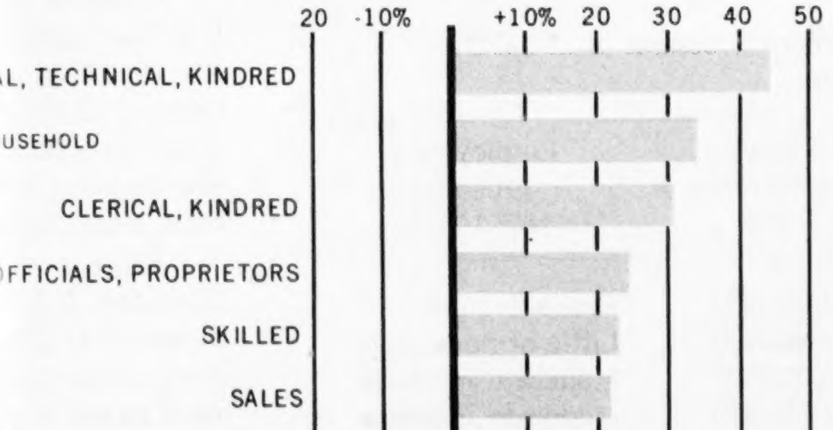
them into nine occupational groups. These groups differ somewhat from those presented in the material for the young reader. For instance, a job included in the **Skilled** group in chart 1 may be included in either **Machine Trades occupations**, **Bench Work occupations, Structural Work occupations,** or even **Miscellaneous occupations** in the grouping that is on pages 5 and 6 These occupational categories were taken from the **Dictionary of Occupational Titles** (1965 ed.). Yet, in spite of these differences between the two occupational groupings, chart 1 serves very well to indicate the trends regarding occupational growth and decline. However, to get a clearer and more definitive picture of what is expected to happen to occupations calls for a look at the number of workers that is estimated to be employed in each group in about 8 years.[1]

Chart 1.
Require Extensive Education And Training
PERCENT CHANGE IN EMPLOYMENT, 1965-1975



or, Bureau of Labor Statistics.
Handbook, 1968-1969, p. 17.

In 1966 there were about 4 million on-farm workers, 3.7 million laborers other than those on farms, and 13.9 million semiskilled workers. Today, the expectations are that, by 1975, there will be about 900,000 fewer on-farm workers, no change in the number of laborers, and an increase of about 2 million semiskilled workers. But the expected increase in the number of semiskilled workers, as chart 1 shows, is less than the average growth for this occupational group.

Also in 1966 there were 4.8 million salesworkers, 7.5 million managers, officials, and proprietors, and 9.6 million skilled workers. The predictions at this time are that, by 1975, there will be about 1 million more workers in sales jobs, almost 2 million more workers as managers, officials, and proprietors, and about 2 million more workers in skilled jobs. All these expected increases are averages for the three groups. They will, therefore, grow but not as fast as the next three groups.

Again, in 1966 there were 12 million clerical workers, 9.7 million workers in service jobs, and 9.3 million workers in professional, technical, and kindred jobs. Estimates for the future are that there will be about 3.5 million more clerical workers, more than 3 million more service workers, and about 4 million more workers in professional, technical, and kindred jobs. Each of these expected increases is above the average for each group and indicates that the most job opportunities are to be found in these three groups.

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[1] **Occupational Outlook Handbook,** 1968–69 edition. pp. 29, 237, 245, 267, 289, 314, 316, 317, 623.

Classroom discussions, particularly on the topics in the narrative segments of the **Job Guide,** should be very profitable since these characterize generally the structure of occupations, present important considerations on education and training, give a brief account of employment outlook and trends, and offer practical suggestions on getting a job. If conducting a class is not feasible, the next best method would be to make this booklet available to each student or counselee. In preparing this edition, a conscious effort was made to use, wherever possible, simple, direct language on the 9th grade level. The young reader, therefore, should be able to understand the contents of this **Job Guide** with little assistance. Another method of getting information to tl
readers would be to reproduce c
Occupational Briefs in which a st
counselee has shown interest, anc
them to him for study when he plea
current arrangement of one Brief c
page spread has resulted in providi
information than before.

Besides the **Job Guide** and other
publications of particular interest t
many State Employment Services
occupational and vocational materi
as Occupational Guides and Job Bri
reflect local and statewide conditior
materials will be very useful. Spac
provided at the bottom of each Occu
Brief to record local information o
cance to you and the young pec
counsel.

Table 1

Estimated Employment (1966) and Employment Prospect (mid-1970's) by Industry Group

Industry group	Estimated employment 1966	Employmer prospect Mid-1970'
Agriculture	4,500,000	Rapid decline
Mining	630,000	Little or no cha
Transportation and public utilities	4,100,000	Moderate incre
Manufacturing	19,000,000	Moderate incre
Wholesale and retail trade	14,000,000	Moderate incre
Construction	3,300,000	Rapid increase
Services	13,000,000	Rapid increase
Finance, insurance, and real estate	3,100,000	Moderate incre
Government	11,500,000	Rapid increase

Source: **Occupational Outlook Handbook,** 1968-69 edition.

group and indicates that the
portunities are to be found in
roups.

discussions, particularly on the
narrative segments of the **Job**
be very profitable since these
generally the structure of oc-
esent important considerations
and training, give a brief ac-
ployment outlook and trends,
tical suggestions on getting a
icting a class is not feasible,
method would be to make this
ble to each student or coun-
paring this edition, a conscious
de to use, wherever possible,
t language on the 9th grade
ung reader, therefore, should
nderstand the contents of this
ith little assistance. Another method of getting information to the young readers would be to reproduce copies of Occupational Briefs in which a student or counselee has shown interest, and to give them to him for study when he pleases. The current arrangement of one Brief on a two-page spread has resulted in providing more information than before.

Besides the **Job Guide** and other national publications of particular interest to youth, many State Employment Services prepare occupational and vocational materials, such as Occupational Guides and Job Briefs, that reflect local and statewide conditions. These materials will be very useful. Space is also provided at the bottom of each Occupational Brief to record local information of significance to you and the young people you counsel.

Table 1

imated Employment (1966) and Employment Prospect (mid-1970's)
by Industry Group

Industry group	Estimated employment 1966	Employment prospect Mid-1970's
....	4,500,000	Rapid decline
....	630,000	Little or no change
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ing	19,000,000	Moderate increase
nd retail trade	14,000,000	Moderate increase
n	3,300,000	Rapid increase
....	13,000,000	Rapid increase
surance, and real estate	3,100,000	Moderate increase
t	11,500,000	Rapid increase

cupational Outlook Handbook, 1968-69 edition.

In order to give the best advice to young people about job-training, you should be familiar with the contents of the Vocational Education Act of 1963, the Manpower Development and Training Act of 1962, the Economic Opportunity Act of 1964 and Federal agencies concerned with discrimination in employment. For U.S. Department of Labor programs, complaints are handled by the Office of Equal Opportunity in Manpower Programs, U.S. Department of Labor, Washington, D.C. 20210.

Other Federal agencies concerned with discrimination in employment include:

* Equal Employment Opportunity Commission, 1800 G Street, NW., Washington, D.C. 20506—This agency administers Title VII of the Civil Rights Act of 1964 which prohibits discrimination in employment because of race, creed, color, national origin, or sex.

* Office of Federal Contract Compliance, U.S. Department of Labor, Washington, D.C. 20210—This office administers Executive Order 11246 which required that Government contractors and subcontractors do not discriminate in employment on the basis of race, creed, color, or national origin.

* Wage and Hour and Public Contracts Divisions, U.S. Department of Labor, Washington, D.C. 20210—This office administers laws concerning discrimination in employment based on age and requiring equal pay for equal work regardless of sex.

* Department of Justice, Civil Rights Division, Constitution Avenue and Tenth Street, NW., Washington, D.C. 20530—This division is charged with the responsibility for enforcing provisions of the several titles of the Civil Rights Act of 1964.

List of Additional Readings for Young Jobseekers and Their Counselors

This listing of additional readin
sented under a number of separa
topical headings to help you find
are looking for. However, a numb
publications listed include inforn
more than one topical heading.
Guide for Young Workers is a gooc
—it could be included under mo
topics. So don't limit yourself to c
references designated under th
heading you choose. Look elsew
read the content annotations.

Government publications indi
"free" are furnished, so long as
last, by the issuing bureaus for of
to schools (faculty and library),
braries, business establishment
unions, and other organizations
them in their work. Any Governme
cation for sale (price indicated)
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accompany the order. A discount c
cent is allowed on orders of 100
more. Your local State Employmer
office will have copies of most of th
lications for you to see, especially
expensive ones. Your local publi
may also have them.

Nongovernment publications ma
tained by writing to the address
each item description. In most cas
the publication is marked "free," th
organization expressly invites you
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others the invitation is not expre
you can still probably obtain the
if you write to the issuing organiza

al Readings Jobseekers Counselors

This listing of additional readings is presented under a number of separate major topical headings to help you find what you are looking for. However, a number of the publications listed include information on more than one topical heading. This **Job Guide for Young Workers** is a good example—it could be included under most of the topics. So don't limit yourself to only those references designated under the topical heading you choose. Look elsewhere and read the content annotations.

Government publications indicated as "free" are furnished, so long as supplies last, by the issuing bureaus for official use to schools (faculty and library), public libraries, business establishments, labor unions, and other organizations requiring them in their work. Any Government publication for sale (price indicated) may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Remittance (by check or money order—not stamps or cash) should accompany the order. A discount of 25 percent is allowed on orders of 100 copies or more. Your local State Employment Service office will have copies of most of these publications for you to see, especially the more expensive ones. Your local public library may also have them.

Nongovernment publications may be obtained by writing to the address given in each item description. In most cases where the publication is marked "free," the issuing organization expressly invites you to write for a copy or additional information. In others the invitation is not expressed, but you can still probably obtain the materials if you write to the issuing organization.

APPRENTICESHIP AND APPRENTICES

Apprenticeship and Training Policy for Dental Laboratory Technicians. 1965. U.S. Department of Labor, Bureau of Apprenticeship and Training, Washington, D.C. 20210. 29 pages. Free. This publication includes the basic standards of the National Apprenticeship and Training Policy Statement, covering the trade of the dental technician. It includes detailed information about the written apprenticeship agreement between the dental technician apprentice and his employer, which is a formal contract registered with the appropriate registration agency.

Careers in Apprenticeship, and **Planned Training—Your Future Security.** n.d. U.S. Department of Labor, Bureau of Apprenticeship and Training, Washington, D.C. 20210. Free. These publications provide general information on apprenticeship, including a list of occupations with apprentice training programs and an indication of the length of the training period.

Apprenticeship—Past and Present (Revised). 1964. U.S. Department of Labor, Bureau of Apprenticeship and Training. 31 pages. 20 cents. This booklet traces the development of apprenticeship since the early days, including the experiences as apprentices of such men as Benjamin Franklin, Paul Revere, and other famous men.

The National Apprenticeship Program (Revised). 1965. U.S. Department of Labor, Bureau of Apprenticeship and Training, Washington, D.C. 20210. 31 pages. Free. This booklet presents a brief explanation of the National Apprenticeship Program, including its policies and their application in modern industry.

EDUCATION

Directory—A List of Executive Officers and State Directors of Vocational Education. 1968. Misc. 333-1. U.S. Department of Health, Education, and Welfare, Bureau of Adult, Vocational, and Library Programs, Washington, D.C. 20201. 3 pages. Free. This list contains the name and address of each Executive Officer and State Director of vocational education for each State, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands. Information about vocational education programs may be obtained on request by writing or by visiting the nearest representative listed.

Is "Math" in the Stars for You? 1964. U.S. Department of Labor, Women's Bureau, Washington, D.C. 20210. Leaflet 28. 6 pages, 5 cents. This leaflet describes briefly some of the job opportunities involving mathematics that are now available for women and the expected expansion of occupational opportunities in the future.

School or Else. 1965. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 12 pages, 10 cents. This publication presents a stay-in-school message addressed to youth, with some dollars-and-cents facts about the value of education.

Stay in High School. 1964. American School, Drexel Avenue at 58th Street, Chicago, Illinois 60637. 4 pages. Free. This leaflet may be obtained by any educator upon request. It presents briefly some important facts about why the
student should do everything
become a high school graduate.

FINANCIAL ASSISTAN

Federal Aids for College Stud
U.S. Department of Health, Ed
Welfare, Office of Education,
D.C. 20202. 56 pages. Free. T
tion contains information abo
eral aid programs: The Coll
Guaranteed Loan Program; the
Opportunity Grants Programs;
Defense Student Loan Progra
College Work-Study Program. It
formation about student loans, s
and work-study opportunities at
universities throughout the c
three overseas locations. Also i
list of names and addresses of
institutions in each State, the
Columbia, Guam, Puerto Rico,
gin Islands.

Financial Assistance for Colleg
Undergraduate. 1962. Bulleti
11. U.S. Department of Health
and Welfare, Office of Educatio
ton, D.C. 20202. 360 pages.
bulletin contains information o
arships, fellowships, student loa
ployment opportunities availabl
and universities throughout the
formation is provided about th
average amount of financial
available at individual schools
limitations with respect to sub
field, sex, etc.

Need a Lift? (Revised). 1966.
can Legion, Department S. P.O

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Welfare, Bureau of
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3 pages. Free. This
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1964. American
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pages. Free. This
by any educator
s briefly some important facts about why the high school student should do everything possible to become a high school graduate.

FINANCIAL ASSISTANCE

Federal Aids for College Students. 1966. U.S. Department of Health, Education, and Welfare, Office of Education, Washington, D.C. 20202. 56 pages. Free. This publication contains information about 4 Federal aid programs: The College Student Guaranteed Loan Program; the Educational Opportunity Grants Programs; the National Defense Student Loan Program; and the College Work-Study Program. It includes information about student loans, scholarships, and work-study opportunities at colleges and universities throughout the country and three overseas locations. Also included is a list of names and addresses of participating institutions in each State, the District of Columbia, Guam, Puerto Rico, and the Virgin Islands.

Financial Assistance for College Students: Undergraduate. 1962. Bulletin 1962, No. 11. U.S. Department of Health, Education, and Welfare, Office of Education, Washington, D.C. 20202. 360 pages. $1.25. This bulletin contains information on the scholarships, fellowships, student loans, and employment opportunities available at colleges and universities throughout the country. Information is provided about the type and average amount of financial assistance available at individual schools as well as limitations with respect to subject matter, field, sex, etc.

Need a Lift? (Revised). 1966. The American Legion, Department S. P.O. Box 1055, Indianapolis, Indiana 46206. 128 pages. 25 cents. This publication is an annually revised handbook published as a part of The American Legion's Education and Scholarship Program. It contains sources of career, scholarship, and loan information relative to State laws offering educational benefits.

GETTING A JOB

Handbook for Young Workers. 1965. Bulletin 271. U.S. Department of Labor, Bureau of Labor Standards, Washington, D.C. 20212. 29 pages, 20 cents. This bulletin is designed to help you think about studying, planning, and working so that your job will be satisfying and productive.

How to Get and Hold the Right Job. 1964. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 19 pages. 10 cents. This pamphlet has information that can help you decide on the kind of work you may want to enter and provides suggestions on how to look for a job, how to apply for it, how to conduct yourself during an interview, and how to be successful on your job.

How to Prepare Yourself for Job Interviews. 1965. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 8 pages. 10 cents. This publication presents some important points on appearance and conduct that young job applicants should keep in mind.

Merchandising Your' Job Talents. 1965. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 19

pages. 25 cents. This booklet presents some basic rules and ways for organizing a job-hunting campaign.

JOB MARKET INFORMATION

Occupational Outlook Handbook (Revised). 1968. 1968-69 Edition, Bulletin No. 1550. U.S. Department of Labor, Bureau of Labor Statistics, Washington, D.C. 20212. 763 pages, $4.25. This book contains comprehensive employment information on more than 650 occupations and major industries. Reprints of individual sections of the Handbook are available from the U.S. Government Printing Office. These and other occupational publications of the Bureau are listed in a free pamphlet, **Occupational Outlook Publications,** which may be obtained directly from the Bureau of Labor Statistics, Washington, D.C. 20212.

Occupational Outlook Quarterly. U.S. Department of Labor, Bureau of Labor Statistics, Washington, D.C. 20212. 35 cents single copy. $1.25 per year. This publication is issued four times during the year. It contains current information on employment trends and outlook, supplementing the materials contained in the **Occupational Outlook Handbook.**

LABOR LAWS

A Message to Young Workers About the Fair Labor Standards Act. 1967. Publication 1180. U.S. Department of Labor, Wage and Hour and Public Contracts Divisions, Washington, D.C. 20212. 6 pages. Free. This leaflet lists the hazardous occupations prohibited for minors under Federal law and provides information regarding work which they may perform.

Questions and Answers on Chil
1964. Labor Law Series No.
partment of Labor, Bureau of
ards, Washington, D.C. 2021
Free. This publication present
some important questions abo
child labor laws.

Summary of State Child Labor
Labor Law Series No. 3-A. U.
of Labor, Bureau of Labor Sta
ington, D.C. 20212. 14 page
publication contains informa
State's laws governing minimu
ployment, employment certifi
work, nightwork, and hazardou

OCCUPATIONAL DEFIN
CLASSIFICATION, AND WOR

Dictionary of Occupational Tit
umes. 1965. U.S. Departm
Manpower Administration, Wa
20210.

Volume I Definitions of Titl
$5. This volume lists in al
over 35,000 job titles in
economy. It provides defi
most 22,000 individual oc

Volume II Occupational Cla
Industry Index. 656 page
volume presents the occu
fication structure of the U.
Employment Service. The
sists of two arrangements
first arrangement groups
to a combination of work
material, product, subject
term, and/or industry. T
rangement groups jobs ac
ities and traits required
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Questions and Answers on Child Labor Laws. 1964. Labor Law Series No. 3-B. U.S. Department of Labor, Bureau of Labor Standards, Washington, D.C. 20212. 4 pages. Free. This publication presents and answers some important questions about minors and child labor laws.

Summary of State Child Labor Laws. 1966. Labor Law Series No. 3-A. U.S. Department of Labor, Bureau of Labor Standards, Washington, D.C. 20212. 14 pages. Free. This publication contains information on each State's laws governing minimum age for employment, employment certificate, hours of work, nightwork, and hazardous occupations.

OCCUPATIONAL DEFINITIONS, CLASSIFICATION, AND WORKER TRAITS

Dictionary of Occupational Titles, in two volumes. 1965. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210.

> **Volume I Definitions of Titles.** 809 pages. $5. This volume lists in alphabetic order over 35,000 job titles in the American economy. It provides definitions for almost 22,000 individual occupations.
>
> **Volume II Occupational Classification and Industry Index.** 656 pages. $4.25. This volume presents the occupational classification structure of the U.S. Training and Employment Service. The structure consists of two arrangements of jobs. The first arrangement groups jobs according to a combination of work field, purpose, material, product, subject matter, generic term, and/or industry. The second arrangement groups jobs according to abilities and traits required of workers. It also arrays jobs according to industry.

Selected Characteristics of Occupations (Physical Demands, Working Conditions, Training Time) A Supplement to the Dictionary of Occupational Titles, Third Edition. 1966. 280 pages. $2.75. This supplement lists individual physical demands, working conditions, and training time data for all jobs defined in the **Dictionary.** The information provides additional source material for determining job relationships in such activities as vocational counseling, personnel and manpower activities, training, rehabilitation, and placement.

OCCUPATIONS AND CAREERS

A Career for You as a Certified Laboratory Assistant. n.d. Secretary, Board of Certified Laboratory Assistants, 9500 South California Avenue, Evergreen Park, Illinois 60642. 6 pages. Free. This publication describes briefly the admission requirements and qualifications, courses of training, and job opportunities for young people interested in a career as a Certified Laboratory Assistant. For a copy of this publication and a list of approved CLA schools in your area, write to the above address.

Can I Be an Office Worker?; Can I Be a Technician?; and **Can I Make the Production Team?** Educational Relations Section, Public Relations Staff, General Motors, Detroit, Michigan 48202. Free. These three booklets provide general information about career opportunities for young men and women in many occupations and industries. Each booklet describes briefly some of the related occupations, the educational preparation necessary to qualify for such jobs, advancement opportunities, and sources of additional information.

Career Guide for Demand Occupations. 1965. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. This publication provides information on education, training, and worker trait requirements for 71 occupations in demand; also a bibliography of selected references. This publication is in the process of revision and will be available at a later date.

Careers for Tomorrow—Series. Dates of publication range from 1961 through 1969. Henry Z. Walck, Inc., 19 Union Square West, New York, New York 10003. Publications vary from 96 to 128 pages. All are illustrated with photographs. Price is $3.75 each. This series includes 26 publications dealing with occupational and vocational information about 26 different career fields such as accounting, modern nursing, teaching, and the building trades. Information about these publications may be obtained by writing the publisher. Purchases may be made by order from the publisher or from local book stores.

Careers for Women as Technicians. 1961. Bulletin 282. U.S. Department of Labor, Women's Bureau. 28 pages. 20 cents. This publication provides general information about employment opportunities for women as technicians in many occupational fields in industry and in government. It includes the training requirements, types of training facilities, earnings, working conditions, and chances for advancement in the various jobs as technicians.

Careers in Government—Federal Service Entrance Examination—Including Management Internships. 1967. Announcement
No. 410. U.S. Civil Service Comm
Washington, D.C. 20415. This pamphl
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Careers in Technical Occupations.
OE-80032. U.S. Department of Heal
ucation, and Welfare, Office of Edu
Washington, D.C. 20202. 8 pages. 5
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erally do, their employment opport
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a list of several counseling and gu
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Choosing Your Occupation. 1965. U
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tion, Washington, D.C. 20210. 16 pa
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help discover those occupations best
for you, provides a "self-inventory t
bring the real you" into focus and in
how to find out which occupations o
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**Clerical Occupations for Women Tod
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No. 410. U.S. Civil Service Commission, Washington, D.C. 20415. This pamphlet and the proper form used to apply for this examination can be obtained upon request from most post offices, college placement offices, and offices of the U.S. Civil Service Commission. The pamphlet describes the purpose of the examination, how to apply, and when and where examinations are given. It also contains information about the many and varied career opportunities available in the Federal Government for successful candidates. Over 200 kinds of positions are filled through this one examination.

Careers in Technical Occupations. 1965. OE-80032. U.S. Department of Health, Education, and Welfare, Office of Education, Washington, D.C. 20202. 8 pages. 5 cents each, $2.50 per 100. This publication describes briefly what various technicians generally do, their employment opportunities and chances for advancement, and provides a list of several counseling and guidance groups offering free service to you regarding specific vocational guidance.

Choosing Your Occupation. 1965. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 16 pages. 15 cents. This booklet furnishes guidelines to help discover those occupations best suited for you, provides a "self-inventory to help bring the real you" into focus and indicates how to find out which occupations offer the greatest job opportunities.

Clerical Occupations for Women Today and Tomorrow. 1964. Bulletin 289. U.S. Department of Labor, Women's Bureau, Washington, D.C. 20210. 69 pages. 35 cents. This publication describes the job duties of a number of clerical occupations. It includes the required training and other qualifications for each job and additional related information about earnings, working conditions, and advancement opportunities.

College Courses and Beginning Jobs—Prospective Occupations for Liberal Arts and Science Graduates. 1967. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 23 pages. 15 cents. This booklet is intended for use by employment counselors and others concerned with career guidance. It may also serve as a guide for high school students who have not yet chosen their career occupations, for college undergraduates seeking part-time and summer employment in career related fields, and for graduates making a career choice. It contains information on the kinds of occupations in a number of fields which are open to college graduates in selected courses of study. It also lists the kinds of organization in which the occupations may be found and the level of the degree required.

Future Jobs for High School Girls (Revised). 1965. Pamphlet 7. U.S. Department of Labor, Women's Bureau, Washington, D.C. 20210. 67 pages. 30 cents. This pamphlet describes vocational opportunities in a panorama of job areas where higher education is not demanded. It is addressed to high school girls, high school and junior college counselors, and parents.

Health Careers Guidebook. 1965. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 251 pages. $1.75. This publication describes more than

200 jobs in the health field. It provides information in the health field on: careers; nature of the work; educational, training, and licensing requirements; job prospects; salaries and working conditions; personal qualifications required; and sources of additional information. The sources of additional information contain names and addresses of many organizations, colleges, and universities where one may write to obtain free booklets, brochures, or occupational information.

Occupational Literature (Revised). 1964. Gertrude Forrester. H. W. Wilson Company, 950 University Ave., Bronx, New York 10452. 675 pages. $8.50. This bibliography contains selected titles in all occupations and describes all current references which have value in vocational and educational guidance. Approximately 5,100 pamphlets are included and there are about 1,500 references to books. The publications are classified under about 500 occupational titles, and each publication contains such information as the number of pages or sets and the price. The references briefly summarize the general content of the publication and the major topics included. This bibliography may be especially useful to counselors, teachers, and librarians in selecting occupational literature for vocational and educational guidance. This book may be ordered from the publishing company at the above address.

Occupations in Electronic Computing Systems (Revised). 1965. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 72 pages. 30 cents. This booklet is a compact handbook which gives jobseekers, employment interviewers, training officers, and guidance wor
date survey of the electronic
ing field. Listed are 23 diffe
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Occupations in the Care and
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partment of Labor, Manpowe
tion, Washington, D.C. 20210.
cents. This publication discus
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of those afflicted with ment
and describes 27 occupation
such care and rehabilitation.

Occupations in the Field of Li
1966. U.S. Department of La
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58 pages. 30 cents. This p
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libraries are also discussed.

Planning for a Career in Agric
Teacher Education Research
8, Number 2. The Pennsylva
versity, College of Agricultu
Park, Pennsylvania 16802.
Available for schools to purc
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ing officers, and guidance workers an up-to-date survey of the electronic data-processing field. Listed are 23 different occupations, with detailed descriptions for each. Included is a glossary of technical terms, a bibliography, and a listing of organizations, colleges, and universities where additional information about electronic computing systems may be obtained.

Occupations in the Care and Rehabilitation of the Mentally Retarded. 1966. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 76 pages. 35 cents. This publication discusses the problems peculiar to the care and rehabilitation of those afflicted with mental retardation and describes 27 occupations involved in such care and rehabilitation.

Occupations in the Field of Library Science. 1966. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 58 pages. 30 cents. This publication describes 22 occupations which are peculiar to the operation of a library. In addition to the public library, university and research libraries are also discussed.

Planning for a Career in Agriculture. 1967. Teacher Education Research Series Volume 8, Number 2. The Pennsylvania State University, College of Agriculture, University Park, Pennsylvania 16802. 159 pages. Available for schools to purchase in quantities at $1.25 per copy. This publication includes reliable information assembled to provide the high school student with a better understanding of the broad field of agricultural work. It categorizes all agricultural employees within the framework of eight occupational families. Forty selected occupational briefs (five representative jobs from each of the eight broad families) are included. Each occupational brief contains detailed information about the job, such as the duties performed by the worker, qualifications required for entrance to the job, chances for advancement, and general employment opportunities.

Radiologic Technology—the Professional Career for You. The American Society of Radiologic Technologists, Executive Secretary, 537 South Main Street, Fon du Lac, Wisconsin 54935. 6 pages. Free. This publication describes briefly the work of the radiologic technologist in different areas of the growing branch of medicine known as radiology. Additional information and a list of approved schools may be obtained from the above organization at the address listed.

Successful Careers in Beauty Culture. National Association of Cosmetology Schools, Inc., 3839 White Plains Road, Bronx, New York 10467. 29 pages. Free. This booklet is especially useful for vocational guidance counselors who advise students who are interested in learning about beauty culture as a career. It includes such information as training, entrance requirements, kinds of work done, job conditions, earnings, and advancement opportunities in the field of beauty culture in the United States and Canada.

PART-TIME AND TEMPORARY EMPLOYMENT

Pogo: Welcome to the Beginning. 1966. NYC—505. U.S. Department of Labor, Neighborhood Youth Corps, Washington, D.C. 20036. 24 pages. Free. This publication is an invitation for young people to visit their Neighborhood Youth Corps office and learn that they can get work and, if they want to, can also get help to stay in school and also work.

What To Do This Summer. 1965. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 4 pages. 5 cents. This leaflet gives the names of jobs that students can get during summer vacation with advice on how to get them.

PUBLICATIONS LISTING

Catalog. of Publications. 1967. National Office, B'nai B'rith Vocational Service, 1640 Rhode Island Avenue, NW., Washington, D.C. 20036. This catalog may be obtained upon request. It includes an order form and a list of publications available for sale. Included in its contents are 10 publications dealing with Aids for Parents and Counselors, at varying prices; 15 pamphlets in the Occupational Brief Series, priced at 35 cents each; three cartoons and accompanying texts in the Cartoon Series, for 35 cents each; and two publications in the Guidance Series, for 35 cents each.

TRAINING

For the Disabled: Help Through Vocational Rehabilitation. 1965. U.S. Department of Health, Education, and Welfare, Vocational Rehabilitation Administration, Washington, D.C. 20201. 15 pages. Free. This booklet describes briefly how the vocational rehabilitation program works, who is eligible for the program, and where to go for counseling and the services available. A list of agencies in each State is included and complete information can be obtained from any of them.

It's Your Future. 1965. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 6 pages. Free. This
leaflet describes steps to be
in training courses under
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tages of training now for "fu
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**Job Training Suggestions
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**Manpower for America—Le
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Meeting the Challenge of
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UBLICATIONS LISTING

Publications. 1967. National
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TRAINING

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uture. 1965. U.S. Department of
npower Administration, Washing-
20210. 6 pages. Free. This leaflet describes steps to be taken to enroll in training courses under the Manpower Development and Training Act; gives advantages of training now for "future" jobs; and tells what the local public employment office can do to help. The leaflet was designed as a tool to help recruit students, dropouts, and others who need employment assistance.

Job Training Suggestions for Women and Girls (Revised). 1965. Leaflet 40. U.S. Department of Labor, Women's Bureau, Washington, D.C. 20210. 11 pages. 10 cents. This leaflet gives a brief summary of various types of job training available to women and girls and indicates where such programs are offered.

Manpower for America—Learn and Train for a Job Under MDTA. 1967. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. Free. This publication presents some questions and answers about the Manpower Development and Training Act and the qualifications for training under it.

Meeting the Challenge of Changing Skills. 1964. U.S. Department of Labor, Manpower Administration, Washington, D.C. 20210. 20 pages. 20 cents. This publication reviews effects of technological change upon the national work force and discusses Federal training and retraining projects instituted under the Manpower Development and Training Act (MDTA) to assist unemployed and underemployed workers.

The United States Coast Guard—After Boot Camp (Revised). 1964. Booklet CG—153-1. U.S. Coast Guard, Washington, D.C. 20591. 29 pages. Free. Copies of this booklet may be obtained from your nearest Coast Guard Recruiting Station. This publication is intended to present the various career opportunities available to members of the U.S. Coast Guard after completion of recruit training. It lists and briefly discusses the training offered in over 20 occupations and the location of each school where such training is given.

Bibliography

Adams, Charles, and Kimball, Samaria. **Job Facts: 1966-67.** Reading, Massachusetts: Addison-Wesley Publishing Company, 1966.

Apprenticeship and Training Policy for Dental Laboratory Technicians. U.S. Department of Labor, Bureau of Apprenticeship and Training. Washington: U.S. Government Printing Office, 1965.

Dictionary of Occupational Titles, 3rd edition, Vols. I and II. U.S. Department of Labor, Manpower Administration. Washington: U.S. Government Printing Office, 1965.

Encyclopedia of Careers and Vocational Guidance, Vol. II: **Careers and Occupations.** Chicago: J. G. Ferguson Publishing Company, 1967.

Health Careers Guidebook. U.S. Department of Labor, Manpower Administration. Washington: U.S. Government Printing Office, 1965.

Hoover, Norman K., Smith, Charles W.; and Stevens, Glenn Z. **Planning for a Career in Agriculture.** Pennsylvania: Pennsylvania State University, College of Agriculture, 1967.

Manpower Report of the President, April 1968. U.S. Department of Labor, Manpower Administration. Washington: U.S. Government Printing Office, 1968.

Monthly Labor Review, Vol. 7, July 1964. U.S. Department of Labor, Bureau of Labor Statistics. Washington: U.S. Government Printing Office, 1964.

Occupational Outlook Handbook, 1968-69 ed., Bulletin 1550. U.S. Department of Labor, Bureau of Labor Statistics. Washington: U.S. Government Printing Office, 1968.

Occupational Outlook Quarterly, Vol. 12, No. 2. U.S. Department of Labor, Bureau of Labor Statistics. Washington: U.S. Government Printing Office, May 1968.

Public Law 88-452, 88th Congress, S. 2642, August 20, 1964.

Public Law 89-784, 89th Congress, H. R. 15111, November 8, 1966.

Report of the Secretary of Labor on Manpower Research and Training Under the MDTA, March 1966. U.S. Department of Labor, Manpower Administration. Washington: U.S. Government Printing Office, 1966.

Standard Industrial Classification Manual, 1967. Executive Office of the President, Bureau of the Budget. Washington: U.S. Government Printing Office, 1967.

State Child Labor Standards, Bulletin 158 (revised 1965). U.S. Department of Labor, Bureau of Labor Statistics. Washington: U.S. Government Printing Office, 1965.

The National Apprenticeship Program. U.S. Department of Labor, Bureau of Apprenticeship and Training. Washington: U.S. Government Printing Office, 1965.

Index And DOT Classification Of Occupations

Occupational titles	Page	Dictionary of Occupational Titles, 3rd Edition	
		Code	Worker traits arrangement page no.
Adding-Machine Operator	36	216.488	288
Agricultural Aid	102	421.384	413
Airplane Mechanic	114	621.281	312
Airplane-Mechanic Apprentice	114	621.281	312
Airplane-Mechanic Helper	114	621.884	322
Airplane Stewardess	78	352.878	507
Apprentice—General Comments	20	See Specific Titles	
Automobile-Body Repairman	146	807.381	312
Automobile-Body-Repairman Apprentice	146	807.381	312
Automobile-Body-Repairman Helper	146	807.887	360
Automobile Mechanic	116	620.281	312
Automobile-Mechanic Apprentice	116	620.281	312
Automobile-Mechanic Helper	116	620.884	322
Automobile-Service-Station Attendant	176	915.867	503
Barber	80	330.371	499
Barber Apprentice	80	330.371	499
Beauty Operator	86	332.271	499
Beauty-Operator Apprentice	86	332.271	499
Bellman	82	324.878	507
Bookbinder	178	977.884	322
Bookbinder Apprentice	178	977.884	322
Bookkeeping Clerk	32	210.388	280
Bookkeeping-Machine Operator	34	215.388	280
Calculating-Machine Operator	36	216.488	280
Card-Tape-Converter Operator	38	213.382	274
Carpenter	148	860.381	312
Carpenter Apprentice	148	860.381	312
Carpenter Helper	148	860.887	360
Cashier	40	211.368	267
Compositor	180	973.381	312
Compositor Apprentice	180	973.381	312
Computer-Peripheral-Equipment Operator	42	213.382	274
Construction Worker	150	869.887	360
Cook Helper	84	317.887	360
Coremaker	110	518.381	312

Occupational titles	Page	Dictionary of Occupational Titles, 3rd Edition	
		Code	Worker traits arrangement page no.
Coremaker Apprentice	110	518.381	312
Coremaker Helper	110	518.887	360
Cosmetologist	86	332.271	499
Cosmetologist Apprentice	86	332.271	499
Cylinder-Press Man	118	651.782	435
Cylinder-Press-Man Apprentice	118	651.782	435
Data Typist	44	213.588	287
Dental Assistant	22	079.378	477
Dental-Laboratory Technician	138	712.381	312
Dental-Laboratory-Technician Apprentice	138	712.381	312
Diesel Mechanic	120	625.281	312
Diesel-Mechanic Apprentice	120	625.281	312
Diesel-Mechanic Helper	120	625.884	322
Digital-Computer Operator	46	213.382	274
Dry-Cleaner Helper	88	362.886	356
Duplicating-Machine Operator	48	207.782	435
Electrical-Appliance Serviceman	152	827.281	312
Electrical-Appliance-Serviceman Apprentice	152	827.281	312
Electrical-Appliance-Serviceman Helper	152	827.887	360
Electrician	154	824.281	312
Electrician Apprentice	154	824.281	312
Electrician Helper	154	829.887	360
Farm Hand	104	421.883	444
Floor Layer	156	864.781	319
Floor-Layer Apprentice	156	864.781	319
Floor-Layer Helper	156	864.887	360
Food-Service Worker	90	See Specific Titles	
Bus Boy	90	311.878	507
Car Hop	90	311.878	507
Counterman	90	311.878	507
Fountain Man	90	319.878	507
Forester Aid	106	441.384	413
Gas-Appliance Serviceman	122	637.281	312
Gas-Appliance-Serviceman Helper	122	637.884	322

Occupational titles'	Page	Dictionary of Occupational Titles, 3rd Edition	
		Code	Worker traits arrangement page no.
Grocery Checker	74	299.468	269
Hand Presser	94	363.884	322
High-Speed-Printer Operator	38	312.382	274
Hotel Clerk	50	242.368	265
Instrument Repairman	140	710.281	312
Instrument-Repairman Apprentice	140	710.281	312
Instrument-Repairman Helper	140	710.884	322
Jeweler	142	700.281	312
Jeweler Apprentice	142	700.281	312
Key-Punch Operator	52	213.582	274
Kitchen Helper	84	318.887	360
Laundry Laborer	92	361.887	360
Library Assistant	54	249.368	258
Licensed Practical Nurse	24	079.378	477
Machine Presser	94	363.782	435
Machinist	124	600.280	430
Machinist Apprentice	124	600.280	430
Medical Assistant	26	079.368	477
Medical-Laboratory Assistant	28	078.381	418
Messenger	56	230.878	509
Metal Patternmaker	126	600.280	430
Metal-Pattenrmaker Apprentice	126	600.280	430
Molder	112	518.381	312
Molder Apprentice	112	518.381	312
Molder Helper	112	519.887	360
Nurse Aid	96	355.878	479
Nursery Worker	108	406.887	360
Office Boy	56	230.878	509
Office Girl	56	230.878	509
Office-Machine Serviceman	128	633.281	312
Office-Machine-Serviceman Apprentice	128	633.281	312
Offset Pressman	130	651.782	435
Offset-Pressman Apprentice	130	651.782	435
Operating Engineer	158	859.883	444
Operating-Engineer Apprentice	158	859.883	444

Occupational titles	Page	Dictionary of Occupational Titles, 3rd Edition	
		Code	Worker traits arrangement page no.
Orderly	96	355.878	479
Painter	160	840.781	319
Painter Apprentice	160	840.781	319
Painter Helper	160	840.887	360
Parking-Lot Attendant	182	915.878	507
Pipe Fitter	162	862.381	312
Pipe-Fitter Apprentice	162	862.381	312
Pipe-Fitter Helper	162	862.884	322
Plasterer	164	842.781	319
Plasterer Apprentice	164	842.781	319
Plasterer Helper	164	842.887	360
Plumber	166	862.381	312
Plumber Apprentice	166	862.381	312
Plumber Helper	166	862.884	322
Policeman	98	375.268	416
Police Cadet	98	375.268	416
Radio-and-Television Repairman	144	720.281	312
Radio-and-Television-Repairman Apprentice	144	720.281	312
Receptionist	58	237.368	258
Refrigeration Mechanic	132	637.281	312
Refrigeration-Mechanic Apprentice	132	862.381	312
Refrigeration-Mechanic Helper	132	637.887	360
Sales Clerk	76	290.478	501
Secretary	60	201.368	263
Sheet-Metal Worker	168	804.281	312
Sheet-Metal-Worker Apprentice	168	804.281	312
Sheet-Metal-Shop Helper	168	804.886	356
Sorting-Machine Operator	64	213.885	447
Stenographer	62	202.388	278
Tabulating-Machine Operator	64	213.782	435
Tape Librarian	66	223.387	271
Telephone Installer	170	822.381	312
Telephone Operator	68	235.862	291
Teller	70	212.368	267

Occupational titles	Page	Dictionary of Occupational Titles, 3rd Edition	
		Code	Worker traits arrangement page no.
Tile Setter	172	861.781	319
Tile-Setter Apprentice	172	861.781	319
Tile-Setter Helper	172	861.884	322
Tool-and-Die Maker	134	601.280	430
Tool-and-Die-Maker Apprentice	134	601.280	430
Transferrer	184	972.381	312
Transferrer Apprentice	184	972.381	312
Typist	72	203.588	287
Waiter	100	311.878	507
Waitress	100	311.878	507
Welder	174	819.381	312
Welder Apprentice	174	819.381	312
Welder Helper	174	819.887	360
Wood Patternmaker	136	661.281	312
Wood-Patternmaker Apprentice	136	661.281	312
X-Ray Technician	30	199.381	418

☆ U.S. GOVERNMENT PRINTING OFFICE : 1969 O—364-619